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ORIGINAL ARTICLES.

REPORT OF SPECIAL COMMITTEE ON COLLECTIVE INVESTIGATION OF DISEASE.

BY B. F. HART, M. D., CHAIRMAN, BROWNSVILLE, MO.

Presented to Missouri State Medical Association, St. Louis, May 3, 1886.]

AS a committee report on collective investigation of disease, the following is offered on malarial fever. Within the last four weeks, circulars asking questions bearing on the subject, have been sent to many counties in the state. Thirty-seven have been responded to by leading physicians residing at county seats. Counties heard from on the north side of the Missouri river are, Ray, Carroll, Chariton, Howard, Audrain, Warren, Linn, Andrew, Adair, Nodaway, Harrison, Putnam, Gentry, Buchanan, Boone, Platte, Clay; and those on the south side are, Saline, Cooper, Cole, St. Louis, Bates, Henry, Pettis, Hickory, Osage, Vernon, Phelps, Washington, St. Genevieve, Barton, Laclede, Cape Girardeau, Jasper, Taney, Wayne, Mississippi, making thirty-seven counties, and a pretty good show ing, as will be seen by referring to the fortunate distribution of these counties over the state, and ought to give a tolerably reliable index to the thought on the question in the state.

Twenty-three questions were submitted.

First. "Has malarial fever been very prevalent the past

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year in your county, more or less than usual?" To this question twenty-eight respond less, seven usual, and two rather more.

This certainly is a most gratifying report about this widespread and often unmanageable, troublesome disease. The response is almost unanimous in favor of decline. And when it is considered that the counties heard from are not only located all over the state, but a good proportion of them represent river bottom counties, most subject to malaria, it shows but too plainly, the handwriting on the wall for this once dreaded and severe scourge of the state. Many respondents say there has been a gradual decline for several years; and others, representing upland counties, say there is now but little malaria in those sections. The reasons for this decline are most obvious; and are accounted for in the general clearing up of the country, the draining and cultivation of the soil. This has been the history of the disease in all lands, with few exceptions which may be satisfactorily explained. How and why these things affect the disease so favorably, will be considered further along.

Second. "What form has prevailed mostly, intermittent or remittent?"

Intermittent is mentioned twenty-three times; remittent ten; and two say they prevail about equally. Although intermittent is mentioned as having been seen far more frequently, yet many declare that remitten t too, is quite common. Better prophylaxis is no doubt the reason why remittent is less common than formerly. Where they prevail about equally, or nearly so, a much larger proportion of remittents are subjected to treatment."

Third. "What proportion of pernicious or congestive cases occur in the intermittent and remittent, and have any been hematuric?"

Sixteen answer from one to three per cent; three put it at ten per cent; two say there has been an increase; three say they have kept no record and cannot answer; and eleven declare they have seen no such cases, which, of course, must apply to the past year only. Thirty-five have taken no note of hematuric cases. One says they are seen very seldom, and the report from Barton county mentions quite a number, twelve having been seen in five years, and four hemorrhages from the stomach.

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This shows very plainly that the hematuric form which prevails so extensively and so fatally in the extreme southern states, is almost unknown in Missouri.

Fourth. "Has the congestive stage in either form, been attended with much fatality?"

Thirty-three answer no, several not having seen any, and four say yes. One thinks fifteen per cent are fatal; another that death never occurs in first chill, but generally in the third. One declares that such cases are generally fatally. There can be no question about the favorable effect of modern treatment in congestive cases. With more attention to premonitory symptoms and better regulated prophylaxis, it is reasonable to suppose most all of these cases could be prevented.

Fifth. "Have malarial fevers shown a greater or less tendency to assume malignancy than usual?"

Twenty-five counties report less; eight about the same; and four—Barton, Osage, Taney and Nodaway—a greater tendency in that direction. One says more malignant this spring than usual; another that the tendency to bad forms is lessened every year, as the country is more cultivated. It is mentioned in one case, that while there is a less disposition to congestive forms, the gravity of such cases is increased.

Sixth. "In latter years has there been any increase or decline in the prevalence of malarial fever?"

Responses from thirty-four counties, declare that there has been a gradual decline; and three, that there has been an increase. Some remark that the decline has been very considerable. In Barton county, some localities show a decline, while in others an increase is observed. In Osage county the increase has been going on for several years; and in Nodaway, increase for the present year. If this general decline is not complimentary to the sanitary efforts of the medical profession, it certainly is to the labor and industry of the agriculturist.

Seventh. "During what month or months has it prevailed mostly?"

Thirty-four mention the fall months, two the spring months, and one fails to answer. July is mentioned sometimes, and August very frequently with the fall months. The answers indicate that

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September gives the largest returns in malarial poisoning. Few speak of spring cases; say they usually show up in April and May, and are usually the cropping out of malaria received into the system in the fall, and not entirely subdued and eliminated. One speaks of seeing more cases than usual during the months of February and March last. There can be little doubt that all cases seen in spring before the middle of May or first of June, owe their origin to fall reception of malarial germs; since there is not sufficient heat to generate them before that time.

Eighth. "State what proportion of cases change from intermittent to remittent, and the reverse ?"

Twenty report very little change either way, perhaps from five to ten per cent; five, that only neglected or mistreated cases change; four have not kept notes and cannot say; and eight, that they have observed no changes. Some say the changes either way are about equal, but a good majority declare there are decidedly more changes from the intermittent to the remittent than the reverse. It is safe to affirm that all changes from the intermittent to the remittent, are the result directly of mistreatment or neglect, since, as there is a less amount of poisoning in the first form, the second could not result unless precious time and opportunity were lost. The reverse change is always hailed with pleasure, for it is known then that germ life is losing its grip, and will soon succumb to the combined efforts of nature and medicine. These changes, from one to the other, either way, clearly demonstrate that the cause is the same in both, yet the symptoms and many characteristic manifestations are quite dissimilar. It is not difficult to understand how the same cause through increased intensity in reinforced germ life may in the same way make greater inroads on the system and further depress the vital forces, as seen in many of the continued fevers, and also, perhaps, in the so-called typho-malarial fever. The natural forces of the constitution, in their primitive and perfect state, before various excesses and many direct violations of the laws of health had vitiated and greatly lowered their standard, were, no doubt, quite equal to the task of removing these germs through the various emunctories from their unnatural habitat, the human body. In exceptional cases, it may be so even

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now. Through such violations, in the course of time, the wheels of nature became clogged and unable to perform this healthful office to the fullest extent, and this deficiency was transmitted to succeeding generations, thus giving rise to milder forms of disease. To an increased and intensified condition of the same state of affairs, may not the graver and more serious fevers be attributed? The increased accumulation of spores in the system, would naturally tend more and more to vitiate the blood, in which is the life-giving principle, finally jeopardizing life itself in continued fevers of a dynamic type. This seems not at all unreasonable.

Ninth. "In intermittent fever how many types have you seen, and which one most frequently?"

The quotidian, tertian and quartan are mentioned by most of the respondents; the two former by nearly every one; and, without exception almost, the tertian is said to be decidedly more prevalent. A few, however, state that the quotidian is seen most frequently. This showing for Missouri is quite the reverse of what happens in Texas, where it is shown from military post records that the quotidian is seen half a dozen times oftener than the tertian. Several speak of seeing double types.

The periodicity in fevers is one of the things not easily explained. Many hypotheses have been offered, but none of them, perhaps, will bear the crucial test of demonstration. The intermissions or remissions of dengue and relapsing fever, are explainable probably in the same way as malarial fever, only the factors in each case being different. Seemingly, Obermeier has shed a little light in this direction, and his observations have been corroborated by several others of high standing in the profession. He states that during the pyrexia of relapsing fever, the spirilli—the cause of the disease—are very numerous in the blood, the more so as the disease is graver; and that during the paroxysm these micro-organisms die, but their spores still live, hatch, and develop into full life, producing another paroxysm.

This accounts most satisfactorily for periodicity in relapsing fever, which, in some cases, has several relapses. What is true in this fever, will doubtless hold good in all periodical fevers. It is simply the development of germ-life of different varieties,

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through its various stages to maturity or until destroyed by the high heat. Heat and germicides which destroy the full grown organisms, fail generally to affect fatally the spores.

Again, it is seen in the more developed orders of higher organizations, that perfect life with them is very ephemeral. Dr. McLaughlin, of Austin, Texas, has very recently discovered bacteria in large numbers in the blood corpuscles of those suffering from dengue fever; and Salisbury and others have long since found palmelic spores in the red corpuscles of malarial fever patients.

While microbes are different in these fevers, it stands to reason they would all be developed on the same plan, some sooner, and some later, according to their life history as represented throughout nature.

Malarial intermissions and remissions may result first, from complete development of the microbes, the different paroxysms being a repetition of the same round of development from spores; or, second, the development may receive a set back corresponding to the periods from the heat developed in their unnatural surroundings.

In confirmation of this latter view, it may be stated that M. Charles Richet, not long since, established beyond a doubt, that heat helps to impede or arrest the development of micro-organisms. Experiment showed that at ordinary temperatures, they would develop rapidly, whereas, when the temperature was raised to 104°, there was no development, the liquid remaining clear and limpid. This being true, it is a question whether the extra heat may not be after all, one of nature's conservations,

If not true, at least an original and very ingenious theory of periodicity was that recently promulgated by Prof. Cantani, who affirms that the spleen is the nidus in which the microbes are received and developed. When the capsule of the spleen is yielding. the development is permitted to take place in it, and enlarged spleen is the result; but when it is very contractile and sensitive, the microbes are thrown out into the current of blood periodically, producing paroxysms, the length of time between depending upon the elasticity of the capsule and the sensitive ness of the organ. This theory finds no difficulty in accounting for all the manifestations of periodicity.

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Tenth. "Do you use preparatory treatment in either the intermittent or remittent form of fever?"

It is stated by eighteen that they do use more or less preparatory medicines; by eighteen, that they do not; and one remains silent. With the present knowledge of the cause and course of the fever, it would seem that a sound and good practice should dictate an immediate warfare, with sledge hammer blows, against the pestiferous little micro-organism, before it has time to develop.

Eleventh. "Mention your treatment in a general way, the amount of quinine given, in what doses, and do you stop at cinchonism?"

With every one quinine seems to be the one great sovereign remedy in acute forms. It is generally given in from three to five and ten grain doses every three or four hours, till from twenty to forty grains are administered, or until cinchonism is produced; when it is slackened up or given in lessening doses or at lengthening intervals. Some give purgatives at first, of mercurial combination; while others combine the same with specific treatment. A few give quinine in ten and twenty grain doses; and in one or two reports it is carried to one drachm or more during the interval. Aconite, nitre, and citrate of potassa, are frequently given during pyrexia, capsicum and other antiperiodics, are often combined with the head remedy. The bromides, opium, alcohol in some shape, nitrite of amyl, chloroform, jaborandi, are mentioned in connection with chill. In the chronic form iron, arsenic, strychnine and iodine, take the lead, and chief reliance is placed thereon.

Twelfth. "Have you found anything to take the place of the cinchona alkaloids as an antiperiodic?"

The answer is almost universal that nothing has been found. Two or three mention arsenic and iodine, as answering very well; salicin, sat. tinct. of black haw, and decoction of cockleburr are mentioned favorably. It is generally conceded, however, that quinine acts more efficiently when combined with other articles having a like effect.

According to personal experience the above views are not ar ticularly out of the way. Of course, there are a great many

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other articles that meet the case tolerably well. Indeed, any remedy with antifermentative properties, is an anti-periodic of greater or less potency, and their name is almost legion. But, considered in the light of the safety and certainty of quinine, it is safe to say no remedy will soon be found to take its place in acute malarial poisoning. The decoction of the rough outside bark of an old sassafras tree, has been found to meet some cases even better than quinine, and it is entirely harmless, but is often not obtainable. For the chronic form, the compound solution of iodine, in connection with a laxative pill of aloes, podophyllin and blue mass, semi-occasionally, has been found to meet all the requirements.

Thirteenth. "How do you meet the indications in congestive cases?"

The hypodermic injection of morphia and quinine, is the sheet anchor of a good many; others use them *per os* in connection with arterial stimulants, and the external use of heat, frictions, hot mustard foot-bath, and wrapping the patient in a blanket wrung out of hot mustard water. Digitalis and jaborandi mixed is recommended once. The hypodermic injection of ether, atropia, and the spts. ammoniæ arom. is recommended. Favorable mention is made of the use internally of chloroform, brandy and tinct. capsicum combined.

Two place their faith in venesection, and on it rest their hopes in desperate cases. This practice might have done well enough fifty years ago; but it seems strangely out of joint in the full blaze of knowledge of the present day. By its advocates, however, it is claimed to do the work and no mistake, even when other things fail, not only in this condition, but in the cachectic, anemic state, which results from long continued poisoning. The conviction cannot be resisted, that nature must have come to their aid most powerfully in this extremity otherwise patients so treated would exclaim "farewell vain world". In the congestive chill stage, nitrite of amyl by inhalation is a prime good remedy, in connection with other recognized treatment to meet this condition.

Fourteenth: "What is your experience in the use of quinine hypodermically, and by inunction?"

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Thirteen respondents say they have had good results from inunction in infants; twenty-two not much use in that way and results not good; from the hypodermic use nine profess to have been pleased with the good effects; twenty-four say no good, or but little experience, and several claim to have seen abscess, ulceration and sloughing from its use in this way: and two keep silent. It would seem from the replies that the remedy has not been very extensively tried in either of these ways by a majority of those responding. The reason for this doubtless is because there is no necessity for it save in very exceptional cases.

It is somewhat inconvenient and troublesome to administer quinine subcutaneously in ordinary practice; besides, there are but few persons to whom quinine cannot be given by mouth or rectum, if combined with morphia. In cases of congestion seriously threatening life, or when the alimentary canal shows supreme disgust for the article, the bi-sulphate especially may be used to great advantage hypodermically. The inunction method, it would seem, is also unnecessary in most cases of infants even, since they too can take the malarial antidote in the ordinary way with good and certain effect. As it takes longer to effect the same end by this plan, and as its action is involved in more or less uncertainty, and, therefore, liable to jeopardize life, it is believed that this method should be resorted to as seldom as possible; though it must be admitted there are some obstinate and perverse cases, in which its use in this way is not only admissible, but really demanded.

Fifteenth. "How do you account for paroxysms commencing usually in day-time?"

Nineteen say they do not know; five are silent; and thirteen give various versions of the matter; such as, "eating and exercising in daytime affects the portal circulation, which favors it;" "more disturbance of the circulation and temperature;" "greater exposure to depressing agencies;" "heat greater and patients more subject to it;" "solar heat in determining constitutional habit;" "heat's action on miasms, and because the nervous system is not at rest;" "more exposed to atmospheric impressions;" "nervous system not at rest, as in the night;" "physical movement and activity favors it, as my experience

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shows that night laborers in active exercise chill as often in the night as in the day ;" "free access of air to the cutaneous surface, producing contraction in the capillaries by vaso-motor irritation ;" and some other answers to the same effect. It is very clear that this question lacks a good deal of being settled.

It is more than probable that neither one of these answers gives the true solution, though some of them may indicate some of the factors. Since it is known that cryptogamic spores are abroad in the night-time, and not in the day-time, as evidenced in the fact that they are found by microscopical search in atmosphere in the night, and not in the day, to but little if any extent; and the further facts that persons have inhabited the most malarious districts by going to the highlands before sundown to sleep, and not returning until after sunrise; and that seamen, when anchored several hundred yards from shore, spend their daytime on land the most malarious, with entire immunity, when under opposite circumstances, in either case, they would have been stricken with disease in its worst form, if not death; it follows, as a reasonable conclusion, that the spore thus accumulated in the blood during the night may be a prime factor in causing the day paroxysm through their zymotic action; at the same time, the other factors of activity of mind and body and atmospheric impressions on the surface nerves, should not be lost sight of or ignored.

Sixteenth. "Do you see much of the intermittent or any of the remittent form in the spring ?"

With one exception all say yes, to some extent. Intermittent was much more frequently seen; indeed, only one claims to have seen more remittent. They generally declare that the cases are not primary, but are simply the dregs of fall infection taking on new life, and appear generally in April and May. One county, Osage, claims to have more of the disease in spring than in the fall, which seems remarkably strange. Nearly all speak of not seeing many cases in the spring, and some say remittents in the fall give intermittents in the spring.

Seventeenth. "In what proportion of cases occurs enlargement of the spleen, dropsical effusion, and cachexia, also relapses of intermittent, and best remedies to prevent them ?"

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For enlarged spleen, dropsy and cachexia, all respondents say the proportion is small, not more than from three to eight per cent, and results either from bad treatment, bad management, and improper diet and exposure, or neglect, and generally occurs in those who are continually exposed to malarial influences in a concentrated form. Relapses are said to be much more frequent, ranging all the way from twenty-five to fifty per cent, owing very much to the kind of treatment to which they have been subjected, as to whether early or late, active or merely a pretense. The remedy to prevent is to see the case early and do the work thoroughly at once. The remedies to meet relapses and the sequelæ are comp. sol. iodine, arsenic, iron, strychnia, bromides, eucalyptus, decoc. outside bark of sassafras, nitric acid, bitter tonics, in various combinations; and these failing, move the patient to higher and non-malarious land.

Eighteenth. "What is the average duration of remittent and typho-malarial fevers?"

The average of remittent is placed from ten to twelve days; typho-malarial ranges all the way from three to six weeks. It is said that if remittent is improperly treated it may assume a typhoid condition, and run on for several weeks. These views are, no doubt, correct; for the disease is certainly more or less protracted, according as to whether it is seen early or late, and subjected to a vigorous or the opposite treatment. Quite a number oppose the name typho-malarial in no uncertain way.

Nineteenth. "Is typho-malarial fever a mixed, or or is it simply a typhoid condition of malarial fever?"

Upon this question several profess to be muddled; and well they may, since medical literature has been so diverse on the subject during the last few years. Fifteen answer malarial; eight, mixed; four, typhoid; two, that they see both malarial and typhoid; and two, that it is neither the one nor the other, but a distinctive, continued fever, produced by a special cause, and having none of the characteristic lesions peculiar to either of the other fevers. Others fail to say what it is, or say that it is a misnomer; others, again, mention it as typhoid complicated with more or less malarial poisoning.

Typho-malarial is, in all probability, not a distinct type of dis-

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ease; but it has served as a mighty good scape-goat to hide ignorance, and bridge over imperfect diagnosis and prognosis, when the case was not always clear. It is most likely that the disease, so-called typho-malarial fever, may be an imperfect recognition of either typhoid fever, malarial fever with adynamic conditions, or typhoid fever complicated with more or less malaria in the system. The writer is inclined to agree with the fifteen; and believes that the disease, in nearly all cases, is caused by malarial poisoning, pure and simple, in systems whose vital forces have been previously lowered to such degree as to cause them to be unequal to the task of contending with fair success, against an overpowering concentrated poison; and hence, the blood is filled with living, dying and dead spores, and thoroughly vitiated and more or less disorganized by them, and requires a long time from which to recuperate; showing, meanwhile, all the marks of a low grade of fever.

Twentieth. "Are the continued fevers in the fall, of malarial or typhoid causation?"

Sixteen answer malarial; five, typhoid; eight mixed; two have seen both kinds; and others fail to answer. Some mention typhoid as being complicated with malaria. Others, while they speak for malarial fever, say a few cases of typhoid are seen. One says typhoid prevails every few years; one—representing Mississippi county—says typhoid is unknown there.

It may be worthy of note that a good many of those favoring malarial cause live in river and low counties. For the reasons heretofore given, it is believed that most of the continued fevers seen in the fall, are of malarial origin.

Twenty-first. "Does quinine exercise a controlling influence in typho-malarial fever, and arrest it?"

Nineteen answer no; sixteen yes, but several qualify it by saying it is a good antidote for the malarial element; others that it influences by lessening severity, but does not arrest; a few say it is injurious, and one that it will kill where there is cerebro-spinal irritation. By one it is said that it does not influence or arrest, nor will it have any anti-pyretic effect in large doses; and in fact, that he has found nothing else that does influence the disease; and from that and other considerations, believes it to be a

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distinct and specific disease without a name; he regarding typho-malarial as a misnomer.

While quinine may not be the the best germicide in this disease whatever it may be called, or if of malarial origin, not used heroically enough to abort in the early stages, and not of so much use when the blood has become vitiated in the latter stage, still, it is believed that a moderate use of the remedy in any event, and under most every circumstance, can not have any other than a good effect.

Twenty-second: "Has the thermometer been of any practical value to a close observer in fevers? What causes the extra heat?"

Twenty-three answer yes; three are silent; and one says no. Most of them think the thermometer has been of very great value, and some say they could not treat a case of fever intelligently without its use. Every one must agree that if a proper estimate be put on the thermometer, it cannot be otherwise than useful. The question should have been a little different; whether too much value may not be attached to thermometer, to the neglect or oversight of other more valuable considerations. That this is the case with many physicians, seems highly probable.

In latter years, due to the thermometer more than anything else, antipyresis has come prominently to the fore-front, and threatens to over-ride and leave in the back ground every other plan of treatment; just as venesection, and calomel led the van in the days long since gone by. It is well to make a halt in this direction, and consider whether there are not other attentions to the patient of more importance than reducing temperature; since high temperature very rarely kills, a patient in England, a few years ago, having maintained a temperature of 122° for nine weeks with recovery, while the cause and its disorganizing effect very frequently does, or leaves the patient a mere wreck of his former self. With high respect for the opinion of others, it is honestly maintained that this antipyretic notion is being carried to a great extreme.

Not a great while since, Prof. Nothnagel, of European fame, ventilated this question quite freely before a Vienna audience of physicians and took strong grounds against this prevailing tendency

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in medicine. He points to the fact that fever is often to be regarded as a salutary condition, in truth, one of nature's regulative processes, and that it is not probable that acute diseases are ever shortened by simply diminishing the temperature. Recently at the German Medical Congress, held at Wiesbaden, like views were declared by many of the most eminent Germans. They argued that there are many other complications which are equally, or even more prejudicial to the patient's safety than hyperpyrexia, which really is the cause of very few deaths; whereas the anatomical changes incident to disease itself, or secondary complications not immediately dependent upon the primary cause of the disease, do the business for nearly all patients who succumb.

When it is remembered that these views find utterance through the leading medical men of a country, which may fairly claim the paternity of antipyretic treatment, it is quite significant, and and ought to cause serious reflection on the subject. This is wherein the thermometer may be detrimental, for, as there is ordinarily a good deal of routinism in practice, the minds of a great many practitioners, and patients as well, are directed too much by the continual use of the thermometer to this particular phase of disease, and overlook more important manifestations. In this way, it is liable to be a stumbling block to many physicians, who only look at disease as they see it manifested through heat. Many older physicians can remember the time when they treated fevers as successfully as now, with no other guager of heat than the educated eye and hand, and could tell to a fraction just about what it meant, and that without detracting attention from other signs of equal, if not of greater importance.

The cause of the extra heat in malarial fever, seems to be not well understood. Sixteen respondents say they do not know; six are silent; and fourteen answer as follows: five say "vaso-motor disturbance;" four attribute it to "tissue-waste;" three to abundance of malarial germs or ferment in the blood;" one to "excitation of organs to oppose and expel the poison;" and one to increased combustion and nervous excitation.

The three who hold to the cause of a ferment in the blood, are believed to be on the right track. The development of germ-

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life in certain media gives rise to fermentative action; this is what probably takes place in the blood in this fever. All reasoning on the subject, analogical and otherwise, leads to this conclusion. The ablest scientists and microscopists in this and in other countries, have found plenty of germs in the blood, and have witnessed the destruction of their work therein. It can be shown that all antiperiodics are antiferments as well; and those that have proven to be the best antiferments, are likewise the best antiperiodics. But fermentation generates heat, and that is exactly what happens when palmelic spores are developed in the blood, which is to them an unnatural environment. Every one is familiar with the generation of heat by fermentative action in the manure heap. Under certain circumstances, fermentation has been supposed to originate fire. It is now known very well that the fermentative action of the yeast plant is nothing more nor less than the development of that plant in its appropriate medium. In dead subjects of yellow fever, the heat has been known to run up as high as 113° three hours after death, when it was only 104° as life passed from the body. Except on the fermentation theory, there is no other way of explaining satisfactorily this phenomenon. In this case there were no heat centres or vasomotor nerves to regulate heat; and the brain, remarkable as it may seem, was cooler by many degrees than any other portion of the body.

If life can be maintained for nine weeks at a temperature of 108° to 122°, as has been above mentioned and yet live and get well, it is not worth while to be frightened out of one's wits at a rise of one or two degrees above normal. Heat of 110° nor of 90° will develop the chick in the egg, one being too high the other too low; it also takes a certain temperature to develop the spores of germ-life; and when the heat due to the growth of germ-life in fever reaches 104°, development for the time being, in all probability, comes to a stand-still. Thus it appears that the confined heat given out in this way may, indeed, be a means of checking spore development, and consequently rather conservative than otherwise, strange and paradoxical as it may seem at first. Some modern theories about the extra heat think it may be due to paralysis of the nervous heat centres;

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thus letting loose the metabolic processes, which are much increased, as shown in the extra carbonic acid gas and urea excreted, and, as the result, a rise of temperature resulting therefrom.

Dr. Ord, of London, in his presidential address to the Medical Society, gives a review of the subject, altogether new and rather plausible. He says it is admitted that in the building up of complex tissues from simpler food products, a certain amount of heat is rendered latent. During febrile disturbance, this complex building up process ceases, and consequently, there is a large amount of heat liberated, which goes to increase the ordinary heat set free in disintegration of tissues. Some experiments, made by him on plant-life, show that heat is thus affected in the building up and disintegrating processes. If the fermentative theory were not more plausible and satisfactory in explaining hyperpyrexia, the one just mentioned, would be worthy of consideration.

Twenty-third. "What is your notion about the cause of malarial fever, and have you made any special investigations or observations in that direction?"

Seventeen say they do not know; eight fail to answer; and twelve attempt to solve the problem in various ways. Quite a number attribute it to the old worn out theory of "heat, moisture and vegetable decomposition;" others to "thermal and atmospheric changes;" some to a "specific effect of a poison, generated outside the body;" and others to "germ life in the system." Only two claim to have made any observations. One says the disease is more common when there are frequent morning fogs; another says, the common expression of the people living along water courses is, "above fog line, above fever line."

It seems a little strange that anyone in this day of investigation should be unable to point out the true cause of malarial fever. Progress has always been impeded by those who are indisposed to accept any new thing on its intrinsic merits; and such will doubtless be the case to the end of time.

Instead of the cause being connected with vegetable decomposition, it is connected directly with the life and growth of cryptogamic forms.

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Many investigations have been made with a view of settling this question in the past few years, more especially in this country and Italy.

Twenty-two years ago Dr. Salisbury, of Ohio, an eminent physician and first class microscopist, gave to the profession the facts of his investigations in this direction. For several years and in several states, he had given his time and attention to the study of microscopic plants and their spores or germinal principle. He promulgated, then, that he had discovered the true cause in the spore of palmela, one of the lowest orders of vegetation, and but recently reaffirms the same thing in his prize essay awarded by the Albany Medical College Alumni Association.

His views have been corroborated by others in this country, and very similar revelations have been made in various parts of the world. Dr. Cutter of this country has made extensive experiments and confirms what Salisbury has said. Prof. Reinsch of France, who has had large experience in this way, analyzed the earth with gemiasma plants on it, sent to him by Dr. Cutter; and makes a confirmatory report. Klebs, Tommasi-Crudeli, Laveran, Richard, Cuboni, Marchiafava, and others of standing in foreign countries, have found similar micro-organisms in the blood and secretions of patients suffering from malarial fever in those countries, to which they attribute the fever. True, the organisms found by Tommasi-Crudeli do not appear to be exactly the same as the gemiasma of Salisbury, but that is no disproof of the latter's assertion, for the cause may be different in the two countries. Certain it is, that in many respects the resemblance of the fevers in the two countries is not altogether striking. Malarial fevers about Rome appear to be much more malignant than they are in this country. Salisbury admits that there are several varieties of the gemiasma which produce fever; some of them producing milder types than others.

The cryptogam discovered by Dr. Salisbury is found growing in damp, peaty or boggy soil, and sometimes in soil recently unearthed that is adapted to its wants; and, like other plants, luxuriates and is most prolific where circumstances most favor its development. Wherever it was found growing, ma-

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larial fever was found hard by, if the locality was inhabited; and this observation was always the same, whether in Ohio, Kentucky, Indiana, Tennessee or elsewhere. On the other hand, where there was no trace of this plant to be found, a case of malarial fever was never discovered, unless caused by a previous visit to a malarious district. The spores rise mostly during the night-time, with the heavy, damp vapors to a height of from thirty-five to one hundred feet, and rest on a level with the fog strata, being more numerous as that altitude is approached. The vapors being dissipated by the morning sun, the spores settle back to the earth, which corresponds to the observation that people living in such districts are much more exempt when remaining indoors till after the sun has risen; and the further fact that persons living in the second story, just above the fog-line, are exempt, while those below, on the first floor, are continually sick. It is during the night and early morning that the spores are taken into the blood through the lungs. During these investigations, running through several years, the fever was found in several localities where it had never been known to prevail before, and was altogether unaccountable till explained by the growth in the immediate vicinity of this cryptogam, it being brought into existence in every instance by circumstances favoring its growth, such as the drying up of pools and ponds, in the damp, peaty mud of which the plant finds acceptable conditions for its home; in other cases, the soil adapted to its growth had been exposed in ditching, making canals, or other excavations in the way of improvement; and, again, by the deposit of such earth in the immediate vicinity of those suffering the consequences. In every instance, without a solitary exception, the palmelæ, with its attending circumstances, as noted above, were in immediate proximity.

To demonstrate still stronger this truth and make assurance doubly sure, the earth on which the plant was growing was put in tin boxes and carried to high, healthy land, far removed from malaria, and where it had never prevailed, and placed on the window sill of the sleeping apartment of healthy young men, and the consequence was in a few days, malarial fever. Various repetitions on different subjects resulted in the same way. In no

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case were the spores ever found in the secretions of those who had not been exposed to malarial influences; but in those suffering from the disease, spores were always found in the blood, urine, sputa and sweat; just the same spores identically that were always collected on the under surface of a glass plate suspended a few inches, during the night time, over the earth upon which the germiasma cryptogam was growing. Does it not appear that proof sufficient has been adduced to point out clearly and unmistakably the true cause of malarial fever? And it must be recollected in this connection, that this is no theorizing, but dealing simply with hard, stubborn facts.

To prove that these spores act zymotically in the blood, the following is submitted. Reasoning from analogy and the well-known action of medical agents which bring relief to patients suffering from malarial poisoning, the conclusion seems to be inevitable that a zymosis or fermentative state is established in the body, producing the symptoms denominated malarial fever, the sweating stage of which, is a powerful, though generally futile effort of nature to rid itself of the poison. The condition of the blood, as shown by examination, in health and disease, proves this to be the case. Fresh drawn, healthy blood, will not cause sugar, urea, amygdaline nor asparagin to ferment; but if exposed from six to fifteen days, all will ferment except amygdaline, no length of time will produce a change in it.

Opposed to this, blood drawn from the vein of a person sick with a zymotic disease, induces fermentation in every one of these articles in a few hours, clearly showing that the fermentative state must have existed in the blood while yet in course of circulation. The poison in the blood evidently acts as the fermentative element in these cases.

Experiments made by Prof. Polli and others, prove that the blood does thus act in health and disease. The process of leavening or fermentation, as is well known, is but the increase by multiplication of the vegetable leaven or ferment in an element suited to its growth, the chemical changes produced being in some way connected with its secretions. But fermentative plants are unlike, and hence produce acetic, vinous, lactic fermentations; so, the causes being unlike, zymotic affections of typhoid

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fever, measles, small-pox, intermittent fever, and the whole class follow as a necessary consequence. A small particle of yeast, in a manner at first quite imperceptible, gradually by multiplication affects the whole mass. So, the incubative stage of certain diseases, quite unnoticed at first, gradually multiplies; the cause becoming constantly more impressive, till finally, there is open rebellion of the vital forces in what are called the various zymotic diseases.

For example, look at the result of inoculation of the merest particle of small-pox virus, of the introduction of a few trichinæ spirales into the stomach; of the effects after incubation of the merest speck of hydrophobic virus, and, to make it plainer, the full-blown case of itch by multiplication from one insignificant acarus; the latter, however, not producing a zymosis, because its field of operation is in an external and comparatively unimpo no an; besides the morbid action is plain to be seen, and is soon arrested by an antizymotic medicine. *Think of it.* Was there ever analogy so striking?

To further prove that malarial fever is without doubt the result of fermentative action of palmelic spores, or in other words, their multiplication in the system, it could be shown in detail, did time and space permit, that all articles which have arrested the fever are recognized anti-ferments, possessing in various degrees this property. It is an admitted fact that in all cases not of long standing, quinine will arrest the fever; but quinine will also arrest fermentation, and that most effectively. Prof. Binz, of Bonn, has tested this property of quinine in a great many instances and concludes in this language: "That quinine has the power of arresting the process of putrefaction and fermentation in a high degree, and that it is active poison for all low organisms, animal and vegetable." Quinine, then, cures malarial fever by arresting the fermentative action of the spores, and causing, perhaps, partial destruction of the same, thereby enabling the system through its eliminative functions to remove the cause, when health returns, sooner or later, depending on the amount of damage sustained by the cause. Is not this plain, common sense, philosophical reasoning from cause to effect?

On the same principle, quinine acts as a prophylactic, and pre-

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serves the body, when administered, from harm in a malarious district. Again, is not arsenic one of the best antiperiodics? Yet, is not it, also, a prime antiseptic or antiferment? What say Emi and other chemists? "That under the microscope, the rapid stoppage of the vitality of the yeast plant, is observed when arsenic is added to the fermenting liquor." The sulphites and hyposulphites of soda, potassa, lime and magnesia, cure malarial fever. Prof. Polli, of Milan, has used them for that purpose for many years. But, are not the sulphites, acting through the sulphurous acid in them, the very best antiseptics or antiferments known? So say Polli, Robinson, and a host of other investigators. In the language of Prof. Polli, the "sulphites possess, in an extreme degree, the power of arresting all known organic fermentations and putrefactive metamorphoses of animal and vegetable solids and liquids." The compound solution of iodine has proven to be an excellent antiperiodic, relieving many cases where quinine had failed. But iodine, also, is found to be one of the very best anti-ferments or disinfectants, so says the distinguished Dr. Richardson of London. Carbolic acid, too, has been used with much success in the treatment of malarial fever, so reports Dr. Treulich and others. The destructive action of carbolic acid in fermentative and putrefactive processes, is too well known to require more than a mention.

Chloride of sodium cures many cases. Its antiseptic properties are familiar to all; it is destructive too, to lower orders of life, and doubtless performs no insignificant part in preserving the body continually from disease. The iron preparations, are good antiperiodics; but are not some of them disinfectants in a high degree? Picric acid and its salts arrest and cure intermittent fever; but they, too, are anti-ferments. Nitric acid, cayenne pepper, peperine, alcohol, salicin, salicylic acid, have all made some good cures, but are not they too, like all the rest, antiseptic and destructive to lower organizations? And, it may be safely affirmed that no curative agent in malarial fever has been or ever will be found that does not possess antiseptic properties to a greater or less degree; for it is through this property alone that the cause can be reached.

Anti-ferments, antiseptics and disinfectants, are terms used to

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convey the same thought—destruction, and protection from infusorial and cryptogamic life.

An effort has been made at some length to prove to a demonstration, three propositions: First, that the cause of malarial fever is, in truth, the spores or bacteria of palmela cryptogam: Second, that they act as ferments; which is shown by the blood in disease, by analogy, and by the known anti-fermentative properties of all medicines that afford relief: Third, that the disease can be arrested and restoration to health effected, through none other than antiseptic remedies.

And the result has been to deepen and strengthen the conviction of the truth of these propositions.

It is very well known, however, that some investigators deny, and others even ridicule, the etiological factor of palmelic spores in malarial fever; while at the same time they take up with and advocate the more recent sensational claim of Laveran, Marchiafava, Celli and Richard, although in truth, it is not so well founded.

But, even should the palmelic theory be finally not sustained, all investigations go to show that the cause must be something similar, produced under like circumstances, acting in the same way, and consequently, would not set at naught, invalidate nor break the force of the second and third propositions.

VASO-MOTOR PERTURBATION IN THE ETIOLOGY OF PNEUMONIA.

BY ALEXANDER B. SHAW, M. D., *Professor of the Practice of Medicine and Diseases of the Mind and Nervous System in the Beaumont Hospital Medical College of St. Louis, Late Associate Physician to St. Vincent's Institution for the Insane, etc.*

[*Read before the Medico-Chirurgical Society, April* 20, 1886.]

DURING the month of October last I saw three cases of croupous pneumonia occurring in children between the ages of 5 and 8 years, each one of which presented a history of excessive indulgence in freshly gathered walnuts, in one case

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two days, and in two cases one day before the commencement of the illness. In all three cases the sickness began with nausea, vomiting, colicky pains in the upper portion of the abdomen and marked abdominal tenderness. The second day of the disease there was in each case fever, pain in the left side of the chest and considerable cough with but slight expectoration. Deep inspiration increased the pain. The third day there was the presence of the physical signs of the first stage of pneumonia of the left lung, and very soon consolidation of the inflamed part ensued.

The dejections contained a great amount of imperfectly masticated walnut kernels, and each child vomited a quantity of undigested walnut meats at the beginning of its illness.

Here we have three cases, bearing throughout a remarkable resemblance. Three previously healthy children, belonging to different families, overload their stomachs with walnuts, have acute gastric irritation, cough, pain in the chest, pneumonia.

Query. Did the walnuts cause the pneumonia? If so, how?

In 1874 or '75, I saw at the clinic of Prof. P. G. Robinson at the City Hospital in this city a case of pneumonia with about the following history:

Mr. ——, a stone-cutter, who was a healthy man prior to his then present illness, related that having eaten a very hearty dinner, he immediately attempted to place a heavy stone in position, so as to more easily dress it. The stone fell on one of his feet and hurt him very much. In consequence of the injury he went home, and about the middle of the afternoon experienced great nausea, and vomited his mid-day meal in much the same condition in which it had been swallowed. He was quite ill all the succeeding night, and the following morning entered the hospital. His sickness rapidly developed into pneumonia.

Query. Did the injury to the foot (shock to the system, interrupted digestion) produce the pneumonia? And if so, how?

In the fall of 1880 a lad, 4 years old, a relative, ate excessively of cake one evening, was very ill with acute gastric irritation the following night, and before twenty-four hours more had elapsed, had developed a pneumonia. The same boy had a second attack of pneumonia, immediately preceded by an attack of acute indigestion due to overloading his stomach.

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Query. Did the overloading of the stomach produce the succeeding pneumonia, and if so, how?

In the spring of 1881, a little patient who was convalescent after a protracted catarrhal pneumonia, ate a quantity of sweetmeats, and soon after presented symptoms indicative of acute indigestion, and in less than twenty-four hours had marked fever, accompanied by all the signs of catarrhal pneumonia.

Query. Did the over-indulgence cause the relapse, and if so, how?

One of my own children, apparently convalescent after a very severe attack of catarrhal pneumonia, suddenly developed symptoms indicative of acute gastric irritation, and in a few hours presented the symptoms and signs of an aggravated case of catarrhal pneumonia. Dr. P. G. Robinson attended this child through both of these attacks.

Query. Did the gastric irritation produce the relapse, and if so, how?

Here we have a series of cases that certainly suggest the relation of cause and effect between the gastric irritation—indigestion, if you will—and the inflammation of the lungs. And notwithstanding the fact that our knowledge as to the vaso-motor nerves is, as yet, quite limited, I venture the proposition that it is reasonable to suppose that at least some of the foregoing cases are examples of pneumonia, caused by perturbation of the vaso-motor centre, located by M. Foster, in the medulla in a small area lying just above the calamus scriptorius, by impressions made thereon by nerves connecting this centre with the primæ viæ, particularly the stomach, which form a centripetal path for impulses originated within the digestive tract.

M. Foster[1] says that "as a matter of fact we find that just as the heart is affected, either in the way of inhibition or of acceleration by influences reaching it along certain nerves, so the action of the vaso-motor centre may be exalted or depressed by nervous influences reaching it from various sentient surfaces;

1. Foster's Physiology, p. 159. Second edition

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That the exalting or depressing influence thus exercised may be brought to bear either on the whole vascular system or a *particular vascular area.*"

E. C. Seguin, in his lectures on localization of spinal and cerebral diseases, says that the vaso-motor centre lies near the median line at the junction of the medulla and pons, and that there are various subordinate centres or foci for important morbid changes, as the diabetic centres, the albuminuric centres, etc. At the posterior part of the mesencephalon (*tegmentum a cruris* of Meynert); at the upper part of the medulla and lower part of the pons is a mass of grey matter which controls the vaso-motor phenomena throughout the body.

The sensory impressions from the great cavities of the body, those connected with vegetable life, not those of touch, temperature, pain or muscular sense, passing from the various organs, enter the spinal cord by the posterior roots, and are probably received by sensory cells in the inner and posterior part of the grey matter—the Clarke column of cells—thence outward to a white column, the direct cerebellar column, by which they are conveyed up to the medulla, the site of the vaso-motor centre presumably involved in the production of at least the cases of catarrhal pneumonia related.

Clinical observation has taught us to look for a characteristic flush on one or other cheek according to the lung involved in pneumonia. Nothing is more common than flushing of the face, often unilateral, from indigestion. Is not the same vasomotor centre involved in each instance?

The spinal and sympathetic systems mutually govern, inhibit, balance or lend strength to each other in promoting the healthy action of the various organs and atoms comprising the complex whole we call the animal economy, and once either one is removed from the harmony of action growing out of a mutual inhibitory, or it may be supporting action, disease is the necessary resultant.

From what is known in regard to the vaso-motor nerves and centres, as taught by physiological experiments and pathological research, we are quite confident that if a lesion be of such nature as to cause simple irritation of the cilio-spinal centre,

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there will result among other symptoms pallor of the face, etc., while, if the influence exerted be of such character as to diminish the activity of the cilio-spinal centre, there will be flushing of the face, etc.

Further, if we divide or paralyze a sympathetic nerve, there is an apparent increase of the nutritive process in the part supplied by such nerve but the vital resistance is really diminished because one of the factors which combine to make up the complete whole, viz., the governing influence of the spinal system has been removed. Although there is an increased amount of blood in the affected part, and this increased blood supply might *a priori* be supposed to increase the vitality or resisting power of the part; there is in reality greatly diminished vitality, and from a prime law of nature, called the *vis medicatrix naturae* by Cullen, there is an effort towards reparative changes, and inflammatory phenomena may follow.

M. Schiff[1] affirms that changes of nutrition originate in the hyperæmic parts in cases of vaso-motor paralysis.

It is a well-known fact that nutritive disorders are occasionally determined in the eye by section of the fifth pair of nerves. M. Claude Bernard long since pointed out that ablation of the superior cervical ganglion appears to retard the manifestation of such nutritive changes.

Physiology[2] teaches us that an irritant applied to a part first causes contraction of the arterioles. Doubtless this contraction is produced by an irritation of a vaso-motor centre; it is soon followed by dilatation. The rapidity of the circulation becomes diminished until oscillation of the blood in the vessels takes place. This oscillation gives place to complete stagnation and the vessels become crowded with blood corpuscles, so that the transparent layer next their walls is no longer observed, and it has often been noticed that the number of colorless corpuscles is increased. One step further and we would have inflammation of the part.

If the supposition that the pneumonia in the foregoing cases

1. Schiff, Physiologie de la digestion, p. 235, t. I. 'Lezioni di Fisiologia, Firenze, 1866, p. 35.

2. Flint's Physiology, p. 742.

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was produced by acute indigestion is correct, we are compelled to believe that through the nervous system alone could gastric irritation produce pneumonia; and further, that such a result could only follow some perturbation of that centre which presides over the function of vegetative life in the lungs, the vaso-motor centre.

That this centre is implicated to a greater or less degree in pneumonia, be the cause what it may, is suggested by the evidence of vaso-motor disturbance, manifested by the characteristic unilateral facial flush, so commonly present in pneumonia. And that this same vaso-motor centre is perturbed by acute indigestion is evidenced by the facial flushing, so generally present in acute gastric disturbance, will, I think, be conceded by all.

Furthermore, we are all more or less familiar with the fact that faulty digestion, especially if acute, is likely to develop such irritation of the respiratory organs, as to give rise to a sudden spasmodic cough—particularly is this the case in childhood—dry at first, but after a time accompanied by some expectoration.

Granting that there must primarily be some peculiar vice of constitution predisposing to pneumonia, are we not justified in regarding interrupted or faulty digestion of an acute character as a common cause of pneumonia, particularly that variety known as catarrhal, justly to be classed as but second to exposure to variations in temperature?

2nd. That pneumonia, when produced by this cause, is due to perturbation of the vaso-motor centre presiding over the nutritive changes in the lungs?

3rd. That this perturbing influence is productive of vaso-motor paralysis in the portion of the lung subsequently inflamed?

4th. Does not exposure to great extremes of temperature cause pneumonia by inducing neuro-paralytic hyperemia in a circumscribed area?

5th. Does not the fact that, as a rule, but a portion of one lung and that portion a complete lobe or lobes, harmonize more perfectly with the theory that the disease is preceded by perturbation of the particular vaso-motor centre or portion of the great vaso-motor centre presiding over the nutrition of the area in-

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volved, than it does with the doctrine that pneumonia is caused by a microbe?

6th. Eccheveria, in his work on epilepsy, states that in investigating the pathological changes in the sympathetic system and nerves connected with it he has found redness and enlargement of the pneumogastric in cases of pneumonia. The medullary substance appeared to be broken up into minute fragments, and the external membrane of the primitive fibres, as well as the perineurium display a great abundance of nuclei. Do the micro-organisms found in the inflamed lung in pneumonia produce these results?

7th. Is the fact that the microbe is found in the inflamed portion of lung credible evidence that this micro-organism caused the inflammation of the lung, or is it not more reasonable to presume that the inflamed area affords a nidus peculiarly adapted to the rapid growth and propagation of the micro-organism, which, under other circumstances, would have been, although freely inhaled, as unfruitful as the first mummy stowed away in the earliest Egyptian pyramid?

NEW YORK MEDICAL MONTHLY.—This is a new journal, the first number of which appeared in May last. Dr. J. Leonard Corning is the editor, and a number of the ablest practitioners and teachers of the metropolis are promised contributors. The first number contains four articles from Drs. F. N. Otis, George H. Fox, C. R. Agnew, and Henry Schweig. The subscription price of the new candi date for professional favor is only one dollar per annum. We welcome the "Monthly" to our table.

TENIA SOLIUM does not always merit the specific title. The *Deutscher Arkiv* relates the particulars of a case in which fifty-nine heads of this parasite were found rolled up in a lump in the feces of a peasant woman. The patient claimed that in the following day two more such lumps were passed.

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EDITORIAL.

EXAMINATION OF WATER.

We have had occasion repeatedly to call the attention of our readers to various phases of the problems connected with the water supply of cities. But the necessity for pure water is none the less urgent in the case of those who dwell in the country than in that of urban residents. It is by no means seldom that it is a matter of great importance to the physician to know with certainty whether the water supply of his patient is contaminated or pure.

In a paper read by Professor C. C. Howard at the late meeting of the Ohio State Sanitary Association, he suggests some tests for the more important proofs of contamination with organic matter, viz., the nitrites and chlorides, which may be used without apparatus. The thorough analysis for organic impurities requires considerable apparatus, several carefully prepared reagents and a degree of technical manipulative skill which is not possessed by the average medical practitioner.

We quote the following from Prof. Howard's paper in the *Sanitarian* for May." The nitrogen of organic bodies is converted in the process of decay into ammonia, and exposed to oxidizing agencies, is oxidized to nitrous and nitric acids, which combine with bases to form nitrites and nitrates. The former are of special interest to us, and I believe that a water organically pure should not contain more than one thousandth part per hundred thousand of nitrous acid, and that the presence of three or four times this quantity is sufficient to condemn a water."

The presence of nitrites has long been considered one of the most conclusive evidences of the presence of organic contamination

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and of probable pollution by animal excrement, while the estimation of the quantity of such contamination has been found an extremely delicate process of analysis.

Prof. Howard says that the reagents which he has found most delicate, and which have acted most satisfactorily in his hands, are sulphuric acid and naphthylamine hydrochloride. He says: "If water containing not more than one-thousandth part per hundred thousand of nitrous acid be treated with a drop of hydrochloric acid and a drop each of solutions of these reagents, after standing ten or fifteen minutes, only the faintest tint of pink will be perceived. If a marked pink be produced, the quantity of nitrites is sufficient to indicate serious contamination. In sewage and in the water from a few wells, the color was of a deep carmine, and the quantity present twenty to sixty-six times the limit stated."

In the last edition of Prof. Curtman's little volume, noticed on p. 38, of this issue of the COURIER, in the chapter on Analysis of Water, he states that the most delicate test yet found for the presence of nitrates or nitrites is pyrogallic acid with sulphuric acid. "Water containing 0.2 mgr. of nitric acid per litre (two tenths part per million parts) will still distinctly show a brown zone when pyrogallic acid is dissolved in it, and then ten or twelve drops of pure concentrated sulphuric acid are poured into the inclined tube, so as to make a distinct layer at the bottom of the test tube; and, when only half that quantity of nitric acid is present, a brown-yellow coloration is produced by the pyrogallic acid and sulphuric acid, visible by looking through the length of the tube at a sheet of white paper below."

Good drinking water should not show a brown color with pyrogallic and sulphuric acid when tested in this way, even when diluted one-hundred fold with distilled water, in Dr. Curtman's opinion.

Another important element, whose presence is a strong indication of the presence of organic pollution, is chlorine in combination with sodium as sodium chloride or common salt.

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Nitric acid and a solution of silver nitrate are the necessary reagents for the detection of chlorides. Prof. Howard says: "In water containing one or two parts of chlorine per hundred thousand, the precipitate is so slight that it appears as an opalescence, while with ten or twenty parts, a precipitate is produced. The appearance of a marked precipitate indicates the presence of a sufficient quantity of chlorides to justify the rejection of the water." Prof. Curtman says: "Water containing more than twenty mgr. of chlorine per litre (1.2 grains per gallon) [2 parts per one hundred thousand], derived from other sources than a saline subsoil, should be rejected."

With such reagents as those mentioned, any physician may make such an examination of water used by his patients for drinking purposes, as will warrant him in drawing pretty positive conclusions as to its potability.

SALICYLIC ACID TREATMENT OF DIABETES.

Dr. J. S. Holden reports in the *British Medical Journal*, May 1, six cases of successful treatment of glycosuria with salicylic acid, as confirming the views of Prof. Latham as to the pathological connection between diabetes mellitus and rheumatism.

The latter holds that there are two distinct kinds of diabetes: First, that which arises from a neurotic disturbance of the function of the liver; second, that which arises from a neurotic disturbance of the function of the muscle. The latter he has found to be so intimately associated with rheumatism that the degree of oxidation determines whether an excess of lactic acid or of glucose shall be formed in the muscles. He has also found that salicylic acid has the power of arresting the formation of both these products.

Dr. Holden has found the salicylic acid treatment to be of no avail in the treatment of non-rheumatic diabetics.

The first and most marked effect of the salicylic treatment in gly-

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cosuria of rheumatic persons, is the almost complete removal of the distressing polyuria.

The careful restriction of diet is less essential in this than in the other form of diabetes, though it is an aid in these cases too.

Dr. Holden has found the following formula a serviceable one for the administration of salicylic acid:

℞ Acidi salicylici, - - - - ʒij.
Sodæ bicarbonatis, - - - - ʒj.
Ammoniæ carb., - - - - ʒj.

Mix in one ounce of water, and when effervescence has ceased add water to twelve ounces.

An eighth or twelfth part to be taken three times a day. This, he says, is not unpalatable when given in a wineglassful of water with a little tincture of orange added. The ammonia prevents any depressing effects.

As a means of distinguishing between the two forms of glycosuria, aside from the presence or absence of rheumatic arthritis, etc., which is generally sufficient, Dr. Latham has observed that in the diabetes of rheumatics there is present in the urine some substance which dissolves cuprous oxide, so that a larger quantity of Fehling's test has to be added before getting the brown precipitate in this urine than in the diabetic urine of hepatic origin.

THE HYGIENE OF OLD AGE.

In the *Therapeutic Gazette* May 15, is a very interesting article by the editor, Dr. H. C. Wood, to some parts of which we desire to call the attention of our readers.

He refers to Prof. Holmes's "One-Horse Shay," which was made equally strong in all its parts, and notes that the man who attains old age, does so largely because he was constructed on that same plan. He calls attention to the special danger due to excessive strength in one part. The athlete's over-developed muscu-

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lar system strains and wears out a heart or lung that was constructed for a much less powerful muscular system. Again he observes that in some constitutions senility occurs prematurely. Some men are older at fifty than their neighbors at seventy or eighty, and many of the cases of nerve exhaustion of men and women breaking down at forty and fifty years of age from overwork, so-called, are in truth cases of premature old age, and need the same kind of nursing and treatment as others who have reached their four-score years. And "a large proportion of early deaths," he says, "are the result of some vital organ being originally endowed with longevity less than that of the rest of the organism. The reason that consumption is so often utterly irremediable is to be found in the fact that in not a few cases the lung has reached its allotted term of days, and must die because its vitality is exhausted. If an eye, or other not vital part, fails from lack of vital power, the man exists; but if a lung dies, he perishes."

From all this he concludes that an individual who enjoys fair health at seventy-five years of age, has probably been built upon the same principles as governed the "deacon" in planning his shay, and should be treated as one would treat a venerable vehicle, avoiding jolts and jars which would throw an unexpected strain upon one part.

Exposure to inclement weather or sudden and unusual muscular exertion which the elasticity and vigorous recuperative powers of young tissues tolerate without any serious harm, throws a burden upon the heart and lungs of the aged man, which the enfeebled and comparatively brittle tissues cannot bear up under, and death ensues.

Going further into details, he remarks that as a man advances in years, he should review with some wise counsellor all his methods of life, his personal habits his peculiarities and his dangers. He refers to the diet of the aged, the importance of having the food soft and easily digestible. Very few old people, he says, need stimulating diet, very many are injured by an excess of nitrogene-

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ous food, meats and other rich food throwing an undue strain upon the kidneys. "Milk and milk products, or preparations of bread stuffs cooked with milk, should form a large proportion of the food of the ordinary aged individual," though on account of the various peculiarities of individuals each one should take personal medical advice as to his own case. He recommends for aged people, *not* for the young and vigorous, the use of wine at dinner to assist and strengthen the digestion.

Finally, he calls attention to the necessity of securing sufficient warmth, as the heat-producing capacity diminishes with advancing years. He strongly recommends the wearing of a buckskin jacket as being the best garment for heat-preserving that is to be had. He says every one who passes his seventieth year should be provided with one, to be worn at first only when going out of doors, but in very advanced life to form a part of the ordinary underwear. He also recommends the wearing of a flannel abdominal bandage whenever there is any tendency to abdominal weakness.

CONSANGUINITY IN MARRIAGE.

At the recent meeting of the Ohio State Medical Society a paper was read by Dr. E. S. McKee, of Cincinnati, who reaches conclusions so closely like those which years of observation and study have convinced us are true that we present them here as kindly sent us by the author of the paper.

1. Like breeds like, good or bad, entirely independent of consanguinity.

2. Evil results have, undoubtedly, followed consanguineous marriages, but whether dependent upon consanguinity is extremely doubtful.

3. Intemperance, luxury, dissipation, sloth and shiftlessness, as well as unhygienic surroundings and innumerable other causes,

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among them the depraved moral state dependent on births, the result of incest, should bear much of the responsibility laid at the door of consanguinity.

4. Testimony is often weakened by religion or other prejudices.

5. Data are of doubtful reliability, full of flaws and false reasoning. The noted cases are the unfortunate ones. The favorable are unknown or forgotten. It is the ill news which travels fast and far.

6. We as physicians know that there is much more illicit intercourse than is generally discovered. May not many people be related, though not aware of it? Many marriages may thus occur between relations presumed to be non-relations, thus again vitiating statistics.

[This seems to us an exceedingly weak argument, and what little weight it has bears quite as much against as for the general result.]

7. Statistics show about the same proportion of deaf mutes, idiots and insane persons descended from consanguineous marriages to the whole number of these unfortunates, as the number of consanguineous marriages is to the whole number of marriages. They show fertility among the consanguineous to be slightly greater than among non-consanguineous. They also show a somewhat greater frequency of retinitis pigmentosa.

8. Atavism explains fully the fact that in some instances healthy consanguineous parents beget unhealthy children. This, as is well known, occurs in most hereditary troubles. Furthermore, a less superficial examination may show this healthfulness to be only apparent.

9. Evil results in the offspring of consanguineous marriages, prove that something was wrong. That it was the consanguinity has not been proven. It may have been one of a hundred things and dependent on all of the antecedents for generations. Such results remaining absent after these marriages proves, for that case at least, that consanguinity was harmless, for it was known to be

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present. Further, if consanguinity was the cause, the effect should follow where the cause is present.

10. Consanguineous marriages which bring together persons having a disease or morbid tendency in common, are dangerous to the offspring. Not, however, one whit more so than the marriage of any other two persons, not related, yet having an equal amount of tendency to disease in common. Conditions present in both parents, good or bad, are simply augmented, and the result would have been the same were they not related.

11. Given a malformatiou or disease firmly established, we have a tendency to breed true. Given a defect or peculiarity in a family, race or sect, this will naturally be propagated by intermarriage; *e. g.*, color blindness is remarkably hereditary among the Jews and Quakers. The Quakers are educated to abhor color. Those who admire colors separate themselves from the sect, and thus intensify the tendency in the remainder. The defect has probably crept in amoug the Jews, and is kept up and intensified by intermarriage. The same means has also had its effect among the Quakers.

12. Certain inherited diseases as scrofula, phthisis and rachitis, which are ascribed to consanguineous marriages, probably in every instance could be traced back to an ancestor.

13. Man is an animal, anatomically, physiologically and sexually. He is subject to the same laws of propagation. In-and-in breeding in animals is carried on to an extent not only not permissible in the human species, on moral grounds, but also beyond the bounds of human possibility. Yet this is done by cunning breeders to improve the stock and to put money into their pockets. The Jersey cattle have been bred for the last 150 years on a small island six by eleven miles. You would not raise them for beef or oxen, yet they command a high price for their milk and butter. This was probably the recommendation of the first cattle on the island, and this quality has improved from that time to this through in-and-in breeding.

14. It would be better for the offspring were consanguineous

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marriages under medical supervision. Certainly no better than for all marriages to be under like supervision.

15. The half a hundred abnormalities ascribed to consanguinity, including almost "all the ills that flesh is heir to," among others, whooping cough, approaches the ludicrous.

16. The factors which lead to consanguineous marriages are, portions of country geographically isolated or mountainous rendering communication with the outside world difficult, religious or political sects of an exclusive nature, and aristocratic ideas. As examples, note the per cent of consanguineous marriages in Scotland, 5.25 per cent, to those in England, 3 per cent, the preponderance in Martha's Vineyard, the commune of Batz, and among the Jews and Quakers.

17. The facts do not warrant us in supposing that there is a specific degenerative effect caused *ipso facto* by consanguinity.

18. Consanguineous marriages, no other objection being present, should not be opposed on physiological grounds.

THE OPPONENTS OF BACTERIOLOGICAL THEORIES are beginning to assert themselves with much more vehemence than they dared to use a short time ago, and, gaining courage as they proceed, they will give the advocates of the new doctrines a task in defending their theories. We are not sorry to see the signs of the approaching struggle, for, true or false, the microbial theories have, we think, been too readily accepted by the mass of the profession upon the authority of a few learned investigators. All the arguments *pro* and *con* have not yet been set forth as clearly as they might be; and an animated discussion will do good in establishing the truth or falsity of these latest theories of disease..—*Med. Record*, June 12.

HASH PRESERVING.—The *Sanitary News* laments, on hygienic grounds, the organization in Chicago of a company known as the "United States Hash Preserving Company."

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BOOK REVIEWS AND NOTICES.

PRACTICAL CLINICAL LESSONS ON SYPHILIS AND THE GENITO-URINARY DISEASES. By FESSENDEN N. OTIS, M. D., etc. *New York: Printed for the Author.* 1886. 8vo.; pp. 584, cloth.

This is not a revised edition of Dr. Otis' work, but simply a new issue from the stereotype plates which were purchased by the author on account of the financial embarrassment of the former publisher who issued the volume first only on subscription at a relatively high price. The author, accordingly, desiring to have his work readily accessible to all who wish it, has caused a "students' edition" to be printed from the original plates at a price simply covering the cost of production. A second, revised edition is promised later.

Probably no one has had a more marked influence upon the present status of genito-urinary surgery than Dr. Otis, and though some of his views are not accepted by all of his surgical confreres, they are the views of a master, and as such should be known by all who work in that field.

DR. BEILSTEIN'S LESSONS IN QUALITATIVE CHEMICAL ANALYSIS, with Copious additions, including Chapters on Chemical Manipulations, Analysis of Organic Substances, and Lessons in Volumetric Analysis. By CHARLES O. CURTMAN, M. D., etc. Second Edition, revised and enlarged, with additional chapters on Analysis of Drinking Water and of Urine. Illustrated. *St. Louis, Mo.*; *Druggist Publishing Co.*, 1886. Small 8vo.; pp. 200; cloth.

Fuller acquaintance serves but to confirm the favorable impression formed of Prof. Curtman's translation and adaptation of Beilstein's chemical analysis. We believe it to be the best volume now available for the guidance of the medical student in the practical details of work in the chemical laboratory.

This edition is much enlarged, and the additions on analysis of drinking water and of urine are specially serviceable for the medical student, for whose use the book is specially intended. There is

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no doubt that more careful attention to the quality of water used for drinking purposes will be required of physicians in the future than has been done in the past, and everything which facilitates making reliable examinations of water is of interest and value.

INSANITY AND ITS TREATMENT. Lectures on the Treatment, Medical and Legal, of Insane Patients. By G. FIELDING BLANDFORD, M. D., Oxon., etc. Third Edition. Together with TYPES OF INSANITY, an Illustrated Guide in the Physical Diagnosis of Mental Disease. By ALLAN MCLANE HAMILTON, M. D., etc. *New York: Wm. Wood & Co.*, 1886. 8vo.; pp. 376; cloth. (Wood's Library for 1886.)

In the increased attention which is paid to diseases of the nervous system, and the notable and distressing increase of insanity in all civilized countries is to be found good ground for interest in the records of the result of careful study and observation by skilful alienists. Dr. Blandford's work is of interest to every general practitioner, for there is none who may not be called upon at any time to diagnosticate and treat a case with reference to which it is a matter of the utmost importance that they should be able to determine accurately the mental condition of the patient, or one where the adoption of proper treatment may quickly decide the question between a prompt restoration of mental health and a condition of hopeless chronic insanity.

The illustrations contained in Dr. Hamilton's part of the volume are an interesting addition, though we doubt the possibility of gaining from pictures any such familiarity with the physiognomy of the insane as to afford much assistance in diagnosis.

We are glad to see this volume in "Wood's Library for 1886."

CLINICAL STUDIES ON DISEASES OF THE EYE, including those of the Conjunctiva, Cornea, Sclerotic, Iris and Ciliary Body. By FERDINAND RITTER VON ARLT. *Philadelphia: P. Blakiston Son & Co.* 8vo., pp. 325; cloth, $2.50. (St. Louis: J. H. Chambers & Co.)

The above is the title of a translation of a work by Prof. Arlt, of Vienna, which treats exclusively of diseases of the above mentioned parts of the eye.

Among the interesting points in the book, we notice that the word trachoma, as the name of a disease, is discarded, and chronic blenorrheal conjunctivitis has been substituted. We are glad to see this change, as, clinically, at least, trachoma, as describing a disease, has always seemed to us inadequate and misleading. In discussing the contagiousness of this disease, he mentions that it

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may be conveyed by the air; also that the secretion loses its power of infection when diluted with 50 or 100 parts of water.

The keratitis, which frequently accompanies granular lids, and is usually attributed to the friction of the rough surface of the lids over the cornea, he would attribute largely, if not entirely, to an inflammation of the corneal conjunctiva, similar to that which attacks the tarsal and scleral conjunctiva.

Much more prominence is given to inflammation of the ciliary body than is usual, 37 out of 321 pages being devoted to it.

Among the noticeable things in these pages is the statement that the presence on Descemet's membrane of the minute punctation, which has been called punctate keratitis, or serous iritis, is always dependent upon cyclitis.

Sympathetic inflammation of the eye he terms sympathetic cyclitis, and favors the hypothesis that it is caused by cyclitis in the other eye, and is transmitted by the ciliary nerves.

The treatment of the various subjects is interesting and very minute. In the translation many of the sentences are long and involved, making it difficult reading.

As a text-book it is not valuable, as it would be confusing, and possibly incomprehensible to one not already familiar with diseases of the eye.

M. H. P.

DISEASES OF THE SPINAL CORD. By BYROM BRAMWELL, M. D., F. R. C. P. (Edin.), etc., etc., etc. Fifty-three colored Plates and one hundred and two fine Wood Engravings. Second Edition. *New York: Wm. Wood & Co.*, 1886. 8vo.; pp. 298; cloth. (Wood's Library, 1886.)

In no department of medicine is the evidence of progress more apparent than in that of diseases of the nervous system.

The first edition of Dr. Bramwell's work on diseases of the spinal cord made a favorable impression upon the profession, and was translated into several other languages.

In this second edition, careful revision of the first has been made, and more space has been given to the consideration of the subject of concussion of the spine and the examination of "railway cases."

The volume is a valuable one, not only to those who devote special attention to nervous diseases, but also to the general practitioner, and forms an admirable opening volume for "Woods' Library of 1886."

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A REFERENCE HAND-BOOK OF THE MEDICAL SCIENCES, embracing the entire range of Scientific and Practical Medicine and Allied Sciences. By various writers. Illustrated. Edited by ALBERT H. BUCK, M. D. Vol. II. *New York: Wm. Wood & Co.*, 1886. 4to.; pp. 814; cloth or sheep; sold only on subscription.

To write a review of a series of volumes like that now being issued from the press of Wm. Wood and Company is impossible until the series is complete. Equally impossible is it to write a review of the separate volumes, for each one contains a large number of subjects treated by different authors.

We can only say that the favorable impression received from the examination of the first volume is fully sustained by this second volume.

One hundred and four writers contribute articles to its pages; and, on the whole, the manner in which the subjects are treated, is well adapted to the wants of the general practitioner.

A TREATISE ON BRIGHT'S DISEASE OF THE KIDNEYS, its Pathology, Diagnosis and Treatment. With chapters on the Anatomy of the Kidney, Albuminuria and the Urinary Secretion. By HENRY B. MILLARD, M. D., A. M., etc. Second Edition, revised and enlarged. *New York: Wm. Wood & Co.*, 1886. 8vo.; pp. 264; cloth.

This volume, as the author says in his preface, is the result of twenty-six years of hospital and extensive private practice, and several years' study in the laboratory, of pathological and healthy kidneys of men and animals. Most of his illustrations are from his own drawing. He uses the word albumin throughout the volume as being the technical term to designate the proximate principle, while albumen signifies the white of eggs, though now applied very commonly to every kind of albumin.

The first seven chapters being devoted to the anatomy, etc., of the kidneys, he commences in chapter VIII a consideration of "The Significance of the Existence or Non-Existence of Albumin in the Urine," and the general condition of its occurrence in health and disease.

He admits the existence of a physiological albuminuria independent of deranged digestion, which is in direct opposition to the belief of many authorities. "When it occurs frequently and in such quantities as the one-fortieth to the one-twentieth or one-tenth of one per cent, it may be regarded, in the majority of cases, as a renal lesion.

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Chapter IX. "The Test for Albumin in the Urine" is a very thorough discussion of the subject.

He rejects the picric acid test on the ground that it produces a precipitate with the parapeptones and protein compounds.

The four tests upon which he now relies almost exclusively, after much patient and careful experimentation, are nitric acid, heat, Tanret's test with the double iodide of mercury and potassium, and his own test with phenic and acetic acid and potash. The nitric acid test he applies by pouring half a dram of nitric acid into a test tube which he holds obliquely, and allows the urine to trickle very slowly done upon it through a pipette. The tube is then to be held in front of the dark back-ground so that the light will fall obliquely upon the line of junction of the two fluids, where there will be seen a sharp opalescent line of demarcation, if albumen be present.

The formula for the author's own test is the following:

℞ Acidi phenici glacialis (95 per cent), - ℥ij.
Acidi acetici puri, - - - ℥vij.
M. Add. liq. potassæ, - - - ℥ii, ℥vi.

As to the quantity of albumin found in urine, he notes that blood serum contains only three or four per cent. which evidences at once the absurdity of the statements, so often made, that specimens of urine were found to contain twenty-five to fifty per cent of albumin. Doubtless this over-statement of the quantity of albumin is due, as he suggests, to the fact that urine containing even one and a half per cent of albumin, will seem to become almost solid on heating, and looks as if it were half albumin.

The three following chapters contain a careful consideration of "The Importance and Significance of Urinary Casts," their formation and methods of examination.

Next come eight chapters in which are discussed the pathological changes, symptomatalogy, etc., of the various forms of nephritis, which he divides into croupous, interstitial and suppurative. These chapters evidence close observation and careful study.

The last eighty pages of the volume are devoted to the treatment. Rest, regulation of the diet and diaphoretics are recommended for acute croupous nephritis, the hot air and vapor baths, and jaborandi being recommended as the most effective diaphoretics. He refers to the favorable action of nitro-glycerine, and suggests indications for the use of convallaria maialis, digitalis and caffeine. He makes use of minute doses of mercurials with most satisfactory results, he asserts.

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Dr. Millard has unusual ability as a writer. His style is attractive and forcible at the same time, and the volume which he has presented to the profession is instructive and valuable.

THE METHODS OF BACTERIOLOGICAL INVESTIGATION. By DR. FERDINAND HUEPPE. Translated by HERMAN M. BIGGS, M. D., etc. Illustrated by thirty-one wood-cuts. *New York: D. Appleton and Co.* 1886. 8vo.; pp. 218; cloth.

This is the best manual that has been put in the hands of the profession regarding the technique of bacteriological investigation. The methods are described concisely and clearly. It would have been better if the additional matter contained in the latter edition of the original had been incorporated into the translation. Doubtless this will be done in a subsequent edition.

PSYCHIATRY. A Clinical Treatise on Diseases of the Fore-Brain, Based upon a study of its Structure, Functions and Nutrition. By THEODOR MEYNERT, M. D., etc. Part I. The Anatomy, Physiology and Chemistry of the Brain. *New York and London: G. P. Putnam's Sons.* 1885. 8vo., pp. 285; Cloth; $2.75. (St. Louis: J. H. Chambers & Co.)

Dr. Sach has placed the medical profession under obligations to him by the translation of Prof. Meynert's work on Psychiatry. It was by no means an easy task, and in the execution of it Dr. Sach has acquitted himself with credit. Half of the volume at present in hand, deals with the structure and minute anatomy of the brain.

Prof. Meynert's reputation as an anatomist, built up during the quarter century in which he has been giving us lessons upon the anatomy of the brain, in no way suffers from the study of this more minute and extended result of his labors, even though some of his conclusions must needs be corrected by comparison with the results of investigation by more recent and more accurate methods than that upon which he has relied, as for example, Flechsig's method by embryological research and the method by secondary degenerations practised by Charcot and others. The remainder of the volume is divided into two chapters entitled respectively, "Anatomical Corollaries and Physiology of Cerebral Architecture," and "The Nutrition of the Brain." While some parts of these are very satisfactory others are far from being so, and on the whole the impression is given that Prof. Meynert is less to be relied upon as a psychologist than as an anatomist.

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VENEREAL MEMORANDA. A Manual for the Student and Practitioner by P. A. MORROW, A. M., M. D., etc. *New York: Wm. Wood & Co.* 1885. 32mo.; pp. 332; Cloth; $1.00.

This little pocket manual is a companion to the Cutaneous Memoranda noticed in our April issue. They are both models of condensation, and are of use for ready reference regarding the diseases considered, but by no means take the place of thorough works on the same subject.

THE DISORDERS OF MENSTRUATION. A Practical Treatise by JOHN N. UPSHUR, M. D., etc. *New York and London: Geo. P. Putnam's Sons.* 1886. Small 8vo.; square; pp. 200; Cloth.

This "student's manual" contains a very good résumé of the present state of knowledge regarding the disorders which it considers. Nothing in its teachings is particularly striking or novel. It will not supply the need for a thorough treatise on diseases of women, and with such a work there would be little occasion for this.

RATIONALISM IN MEDICINE. By WM. THORNTON. *Boston:* Published by the Author. 1885. 12mo; pp. 46; Cloth; $1.00.

This volume is written for the laity chiefly. The author abjures the use of any remedial agents which are not found in the human system in a state of health. The views which he holds are only outlined in a general way, nor are any proofs offered of the truth of claims which are certainly very broad. The tendency of the book is to impress the reader with the idea that there is one great and only practitioner who can cure their ailments and he is—the author.

THE GENUINE WORKS OF HIPPOCRATES. Translated from the Greek with a preliminary discourse and annotations by FRANCIS ADAMS LL.D., Surgeon. In two Volumes. *New York. William Wood & Co.* 1886. (Wood's Library for 1886).

While the name of Hippocrates has never excited in my breast the profound feelings of reverence which it seems to evoke in others, and while the observations and experience of the best practitioners of the present century seem of infinitely greater value and interest to the readers and workers of the present day than those of an author who wrote more than twenty centuries ago, the publisher's of Wood's Library have doubtless judged wisely that a translation of Hippocrates' works, such as the present one, which

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was made for the Sydenham Society by Mr. Adams, will be well received and highly prized by the profession.

Many will be interested in perusing the pages of these volumes to see how much of what is considered new was foreshadowed in the oldest. It may be that some will find suggestions, among these oldest medical writings that will be of profit and advantage to patients in these later times. E. M. N.

THE PRINCIPLES AND PRACTICE OF SURGERY. BY FRANK HASTINGS HAMILTON, A. M., M. D., etc., etc. Illustrated with 472 engravings on wood. Third edition, revised and corrected. *New York: William Wood & Co.* 1886. 8vo.; pp. 989; Cloth.

Fourteen years have passed since the appearance of the first edition of Prof. Hamilton's work on surgery: the second edition contained no important changes, scarcely more than the correction of typographical errors. The present edition "has the benefit of the author's later experience and study," and we should expect many important changes and additions as the result of such broad experience in a field where there has been such activity during these late years.

The first four chapters are unchanged in their account of inflammation, abscess, ulceration and gangrene. The chapter on wounds is very little altered. Very evidently Dr. Hamilton's views have not been influenced, as have those of so many of his brother surgeons, by the teachings of Prof. Lister. In the account of gunshot wounds are introduced some remarks about the "induction balance" for discovering the location of bullets, and an account of President Garfield's case quoted from the last edition of the author's work on "Fractures and Dislocations." Dr. Hamilton does not favor exploration of the abdominal cavity for lesions of the viscera after gunshot wounds.

We are somewhat surprised to find no change in the view expressed regarding Boeck's practice of syphilization. In this, as in the former edition, the author says that he does not consider the observations as sufficiently numerous to justify him in expressing an opinion as to its general efficacy and value, etc. While this might well be so at the date of publishing the first edition, just the time when Prof. Boeck visited this country and advocated his theory, certainly the falsity of the theory and the inexpediency of the practice have now long been fully demonstrated.

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Chapter XIII is almost wholly new, and is a valuable addition to the volume with its sections on tetanus, shock, section and stretching of nerve and coccydynia.

In the section on "The Means of Arresting Arterial Hemorrhage" we note some very judicious comments on the use of the Esmarch bandage, and that much less space is given than formerly to the description of acupressure.

No material change is found in the chapters on "Fractures and "Dislocations," a most valuable portion of the book. The author has clearly defined and positive views as to the best modes of treatment, and gives the results of his own experience and practice with little consideration for the contrary practice of others. He has decidedly changed his opinion regarding the use of plaster of Paris in the treatment of fractures of the thigh, regarding it now as "not safe or judicious dressing."

He opposes the treatment of fractured patella by wiring the fragments together.

Gastrotomy as a means of enabling the surgeon to dilate with the finger or otherwise, a stricture of the pylorus is, in his opinion, not entitled to one moment's notice, and the exsection of a cancerous pylorus, he considers, "has no proper place in surgery."

The section on "Lesions of and Operations upon the Gall Bladder," is new in this edition. Cholecystotomy he says is "accepted as one of the legitimate alternatives of surgery," cholecystotomy is a questionable operation, while cholecystenterostomy is "entitled to no further consideration than its mention."

He opposes Dr. Otis's treatment of stricture of the urethra and thinks it too early to declare for Bigelow's method of litholapaxy unquestionably superiority over all other methods. The observations of Sir Henry Thompson with regard to supra-pubic lithotomy and digital exploration of the bladder are of sufficient interest to suggest reference to them in such a work as this, but we do not find any allusion to them.

The closing chapter is entitled "The Art of Primary Union, or Union by Adhesion in large Incised Wounds; with a Consideration of the value of Antiseptics in these and other Wounds."

The essentials for such "primary union" he regards as: First, a good or at least an average state of the general health. Second, the removal of all foreign bodies from the wound. Third, coagulation of lymph, as indicated by the glazing of the surface. Fourth,

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the avoidance of all unnecessary violence in the cleansing, closure and dressing of the wound.

Strict compliance with these rules, he thinks, "constitutes the only ground for the superior success of some surgeons, as compared with the success of others, at the present day." Evidently Prof. Hamilton places a much lower estimate on the value of antiseptics in surgery than is generally accorded to them by modern surgeons.

On the whole Prof. Hamilton's work is remarkable for its clearness and reliability and is an admirable guide for student and practitioner.

A SYSTEM OF PRACTICAL MEDICINE By American Authors. Edited by WILLIAM PEPPER, M. D., LL. D., etc., assisted by LOUIS STARR, M. D., etc. Volume III. Diseases of the Respiratory, Circulatory and Hematopoietic Systems. Volume IV. Diseases of the Genito-Urinary, Muscular and Cutaneous Systems. Ophthalmology, Otology. *Philadelphia*: *Lea Brothers & Co.;* 1885. 8vo ; Vol. III. pp. 1032; Vol. IV., pp. 877. Cloth or sheep. (St. Louis: Holdoway & Co.)

As the succeeding volumes of this work appear we are the more deeply impressed, not only with the eminent ability shown in the several separate articles, but more particularly with the consummate tack and skill of the editor in the assignment of subjects to just the right men for their most satisfactory discussion.

We shall not attempt to analyze the articles in these volumes. We can only call attention in passing to a few which have specially interested us.

Diseases of the upper breathing passages are ably presented by Drs. Carl Seiler, Harrison Allen, H. A. Johnson, Abraham Jacobi, Louis Elsberg and Geo. M. Lefferts; while those of the bronchi and lungs are discussed by Drs. N. S. Davis, W. H. Geddings, S. C. Chew, William Carson, A. L. Loomis, Wm. Pepper, Beverly Robinson, Austin Flint, E. T. Bruen, John S. Lynch and Frank Donaldson. The authors of papers on Diseases of the Circulatory System are Drs. Wm. Osler, A. L. Loomis, M. Longstreth, Beverly Robinson, Austin Flint, J. M. Da Costa, Jno. B. Roberts, G. M. Garland, E. G. Cutler, A. H. Smith and E. T. Bruen; while Diseases of the Blood and Hematopoietic System are treated by Drs. Wm. Osler, I. E. Atkinson, D. Hayes Agnew, and S. C. Busey.

In reading Dr. Carson's paper on Hemoptysis, with its evidences of careful research and thorough investigation, we can but recall a

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personal experience of his habit of thorough examination, when he kept us for an hour and a half taking notes of his examination of a single case of pulmonary disease in the Cincinnati Hospital.

The papers on Croupous Pneumonia, by Prof. Loomis, and on Catarrhal Pneumonia, by Prof. Pepper, are exceedingly valuable and interesting, as also that of Prof. Flint on Pulmonary Phthisis, which, by the way, is the longest article in the volume.

But, as we have said before, it is useless to attempt to compare the merits of these different papers. They are all from the hands of men well qualified by study and experience to deal with their special subjects, and the interest of each depends largely upon the particular needs of the reader at the time.

In Vol. IV. we find among those writing on Diseases of the Genito-Urinary System the names of Drs. Robt. T. Edes, Francis Delafield, James Tyson, E. L. Keyes, S. W. Gross, E. C. Dudley, J. C. Reeve, B. F. Baer, T. G. Thomas, W. H. Byford, Wm. Goodell, A. J. C. Skene, E. W. Jenks, W. W. Jaggard, and Geo. J. Engelmann.

Articles on Diseases of the Muscular System are contributed by Drs. J. C. Wilson, James Tyson, and Mary Putnam Jacobi.

Drs. L. A. Duhring and H. W. Stelwagon contribute an excellent summary of the present state of knowledge and practice regarding diseases of the skin.

In the department entitled Medical Ophthalmology, Dr. Wm. F. Norris has succeeded admirably, it seems to us, in what he undertook, viz.,"to give an account of the eye symptoms which may be seen in the course of diseases of the general system, and in connection with the pathological conditions of the various organs of the body."

So also under the heading "Medical Otology," Dr. Geo. Strawbridge gives an account of the "diseases of the ear that are frequently seen by the general practitioner, and especially those that exist as sequelæ to some general disease, and where the ear complication would be treated in connection with the general disorder."

No physician in general practice in the United States can consider his library as complete unless it contains in it Pepper's System of Medicine.

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BOOKS AND PAMPHLETS RECEIVED.

BOOKS.—A Compend of Pharmacy (Quiz-Compend). By F. E. Stewart, M. D., Ph.G. Philadelphia. P. Blakiston, Son & Co. 12mo., pp. 196; cloth; $1.00. (St. Louis: J. H. Chambers, & Co.)—A Manual of Midwifery. By Alfred Lewis Galabin, M. A., M. D., Illustrated with 227 wood-engravings. Philadelphia; P. Blakiston, Son & Co., 1886. 8vo.; pp. 753; cloth; $3.00; sheep $3.50. (St. Louis: J. H. Chambers & Co.)—Diseases of the Digestive Organs in Infancy and Childhood. By Louis Starr, M. D. With colored plate and other illustrations. Philadelphia: P. Blakiston, Son & Co., 8vo., pp. 385; cloth; $2.50. (St. Louis: J. H. Chambers & Co.)—A System of Practical Medicine, Edited by Wm. Pepper, M. D., LL.D., etc. Assisted by Louis Starr, M. D. Vol. IV. Diseases of the Genito-Urinary and Cutaneous Systems—Medical Ophthalmology and Otology. Philadelphia: Lea Brothers & Co. 8vo.; pp. 877; cloth or sheep. (St. Louis: J. H. Chambers & Co.)— Diseases of the Spinal Cord. By Byrom Bramwell, M. E., etc. 53 colored plates and 102 fine wood engravings. Second edition. New York: Wm. Wood & Co. 1886. 8vo.; pp. 298; cloth. (Wood's Library.)—Insanity and its Treatment. By G. Fielding Blandford, M. D. Oxon., etc. Third edition Together with Types of Insanity by Allan McL. Hamilton, M. D., etc. New York: Wm. Wood & Co. 1886. 8vo.; pp. 377; cloth. (Wood's Library.)—Handbook of Practical Medicine. By Dr. Hermann Eichhorst. Vol. I. Diseases of the Circulatory and Respiratory Apparatus. 103 wood-engravings New York: Wm. Wood & Co. 1886. 8vo., pp. 407; cloth. (Wood's Library.)—The Genuine Works of Hippocrates. Translated from the Greek with annotations etc., by Francis Adams LL.D., Surg. Vol. I. New York: Wm. Wood & Co., 1886. 8vo., pp. 390; cloth. (Wood's Library.)—A Manual of Surgery. In Treatises by Various Authors. In three volumes. Edited by Frederic Treves, F. R. C. S., 12mo.; Vol. I., pp. 576; Vol. II., pp. 620; Vol. III., pp. 648. Cloth. $2.00 per volume. Philadelphia, Lea Brothers & Co., 1886. (St. Louis: J. L. Boland & Co., J. H. Chambers & Co.)—The Surgical Diseases of Children, by Edmund Owen, M. B., F. R. C. S., etc. Illustrated with four chromo-lithographs and eighty-five engravings. Philadelphia: Lea Brothers & Co., 1886. 12mo.; pp. 585; cloth; $2.00 (St. Louis: J. L. Boland & Co., J. H. Chambers & Co.)—Surgical Diseases of the Kidney. By Henry Morris, M. A., M. B., F. R. C. S., etc. Philadelphia: Lea Brothers and Co., 1886. 12mo.; pp., 555; cloth; $2.25; (St. Louis: J. L. Boland; J. H. Chambers & Co.)—The International Encyclopedia of Surgery. Edited by John Ashhurst, Jr., M. D., etc. Illustrated with chromo-lithographs and wood cuts. Vol. VI. New York: William Wood & Co., 1886. 8vo.; pp. 1272 sheep.

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REPORTS ON PROGRESS.

MEDICINE AND THERAPEUTICS.

Raw Beef Solution for Dysentery of Infants.—Dr. E. F. Brush finds the use of raw beef solution to be very helpful in treating acute dysenteries of artificially fed infants. He always administers it warm, having found cold drinks bad for infants with dysentery. He prepares the solution as follows: One pound of lean beef, cut very fine, is placed in a quart fruit jar. He then mixes a pint of boiling water and a pint of cold water and pours it upon the beef. Then with a fork he whips up the beef in the jar for fifteen or twenty minutes, or until it is all washed out white. He then allows the beef to settle and pours off the clear solution, which is administered without any addition at all.—*Arch. of Pediat.*, April, '86.

Infant Constipation.—Dr. Brush recommends the use of malt water as a diluent for cows's milk in the feeding of infants who are troubled with constipation. Whole malted barley is ground in a coffee mill. Half a pound is then soaked in a pint of cold water for several hours. This is then strained off and used with an equal quantity of milk. "In cases of badly nourished children, who have but one movement in three or four days, and then the feces consist of a large white mass with a very bad odor, the malt water * * has usually regulated the bowels, giving a good soft yellow fecal discharge daily. In this same class of cases if the bowels become too loose, boil the half pound of ground malt with the pint of water for fifteen minutes, and strain and dilute with it the milk in the same proportion, half and half. When malt water is being used, the milk requires no other sweetening."—*Arch. of Pediat.*, April, 1886.

Oat Meal Water for Acute Diarrhea of Infants.—Dr. E. F. Brush says that when a child is being fed on cow's milk properly diluted and sweetened, and has an acute attack of diarrhea, the in-

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dications are to stop the milk immediately, and in this case he substitutes "raw oat-meal water," prepared by stirring one teacupful of oat-meal (the Ohio oat-meal, he says, is the best) in a pint of cold water. Let it stand for fifteen minutes with an occasional stirring, and when the meal has settled, pour off only the clear water, and give this cold, *ad libitum*, either from a nursing bottle or cup. It does not look like a very nourishing fluid, but Dr. Brush says that he has kept infants for several days on raw oat meal water without apparent loss of weight.

When resuming the milk after such an attack of diarrhea, for a days always boil it—*Arch. of Pediat.*, April, 1886.

Regime for Albuminurics.—The milk diet is that which gives the best results during the course of albuminuria, but this is not applicable to all forms, and cannot be prolonged too long without exposing the patient to serious inconvenience.

The albuminuric should avoid full meals. He should eat often and a little at a time, and aside from the milk diet he may take a little dark meat of poultry and a little of starchy or herbaceous vegetables, but neither eggs nor fish, for both these seem to favor the passage of albumen into the urine.

The use of bread seems to have no unfavorable action. Strong drinks, beer, tea and coffee should be excluded from the diet of albuminurics.—*Paris Méd. 10 Avril; Lyon Med., 25 Avril, 1886.*

REPORT ON OTOLOGY.

BY M. D. JONES, M. D.

Manifestations of Inherited Syphilis in the Ear.—The two most characteristic lesions of the ear caused by inherited syphilis are, according to Dr. Hermet, 1st. Purulent inflammation of the middle ear, leading to the same local consequences as ordinary inflammation of the same parts, but differing from it in being painless. 2nd. A form of deafness which is very intense in degree, very sudden in its ontset, and in which no appreciable lesion of the conducting apparatus is discoverable.

In a case of the latter kind which is related, deafness was said to have developed in four days, when the patient was nine years old.

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Dr. Hermet remarks that deafness so sudden and intense, could only be due to one of three causes, viz., hysteria, tabes or inherited syphilis.

Hysterical deafness comes on in adolescence or adult life, and its chief feature is its curability. The deafness of tabes is equally sudden, as in the case of syphilis, and attains at least as high a degree of intensity. In the present case, however, the age of the child was against tabes, and, at the age of twenty-five when she was seen again, there were no signs of tabes.

The diagnosis of inherited syphilis was arrived at chiefly by the history of abortions and early deaths of other children, which was furnished by the patient's mother, who also affirmed that her first husband had spots on his penis at the time of her marriage, and that her second husband told her he had syphilis in earlier life. The only satisfactory evidence in the patient herself was the deafness, which was accompanied by an apparently healthy condition of the conducting parts of the ear. From this case, Dr. Hermet draws two conclusions. 1st. That in some cases an inherited syphilitic diathesis may be revealed by examination of the auditory apparatus alone. 2nd. That late inherited syphilis may manifest itself solely by disorder of hearing, characterized by complete and absolute deafness of very sudden onset, with integrity of the conducting apparatus. The exact cause of this kind of deafness is not yet known, but it appears to be due to neuritis of the auditory nerve. The affections of the ear mentioned above were the only two which had been observed by Dr. Hermet in the subjects of inherited syphilis up to the end of '84, when he diagnosed an ulcerating syphilide of the external auditory canal, in a child aged 3 years.—*N. Y. Med. Record*, Jan. 23, 1886.

The Tuning Fork in Diagnosis of Lesions of the Internal Ear.—DR. MCBRIDE, of Edinburgh, notes that it is a generally accepted fact that if the tuning fork be heard by bone conduction better in the affected ear, the labyrinth of that side is sound. Cassells, of Glasgow, several years ago, published a case, where, after exfoliation of the left cochlea, the hearing actually improved on that side. Later Schwartze and Christenneck had a patient, who, in spite of the loss of the right cochlea continued to hear the tuning-fork by bone conduction louder in the affected ear. Jacobson, too, reports a case where bone conduction was retained until just before death

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notwithstanding suppurative disorganization of the cochlea. Gruber contributed not long since a case of exfoliation of the two upper convolutions of the cochlea, with only partial loss of hearing on the affected side, and no interference with bone conduction. Schwartze, in his recently published work, accepts these cases as accurately reported, and says the retained bone conduction only proves the auditory trunk and its centre to be sound, but does not imply necessarily a healthy condition of the labyrinth—yet, in spite of the preceding cases, reported by such recognized authorities, there are those who refuse to them the consideration they deserve in clinical study, on the ground that such facts are opposed to physiological common sense.

The writer then cites the case of a patient of his, who fell from a height, striking on the right temporo-parietal region. He was stunned, and for two days could not stand. During this time there was paresis of right arm and leg. Giddiness was intense, and right ear has been deaf ever since. Tuning-fork placed on middle line of forehead was heard better in affected ear. The giddiness was increased by turning from right to left, but not from left to right. The facts of the case would show that the labyrinth of the affected side was injured, and yet bone conduction was better on that side than on the healthy one. So bone conduction is by no means certain proof of a healthy condition of the middle ear.—*Brit. Med. Jour.*, April 10, 1886.

Deafness in Bright's Disease.—DR. DOWNIE refers to the scant literature on this subject, and reports the case of a man aged twenty-seven, married, suffering from chronic nephritis, and who on account of edema of his legs, had been confined nearly constantly for two months to his bed.

On the night of December 2nd he was prevented from sleeping by a constant severe pain in the right ear. Warmed whisky and laudanum were poured into the meatus without giving relief. In the morning the pain had gone, but patient was completely deaf. Examination of Mt. showed nothing, and inflation of middle ear did not improve audition. Condition remained same until the 16th when pain returned in right ear; also a severe pain in left one; and the next morning he was totally deaf on that side. He continued deaf in the left ear until the 29th, and until the 31st on the right side, when hearing set in and continued to complete restoration.

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At time of onset of deafness, patient had been under treatment for two months with an improvement in his condition, edema growing less, urine increasing in quantity, albumen still abundant but decreasing. As there was no giddiness at any time, the lesion of the ear was placed in the cochlea. The form of lesion here was doubtless limited hemorrhage, since the deafness was preceded by sharp pain. For cases of deafness of Bright's disease both uremia and syphilis may enter as factors. Of the former Dr. Roberts says, "uremic deafness is much less common than amblyopia, and its occurrence is highly exceptional."

Dr. Dieulafoy in the *Gazette Hebdomadaire de Méd. et de Chir.* Jan. 25 1878, reports thirty-seven cases of "acute or chronic nephritis, in which auditory disturbances had been noticed in fifteen." In analyzing his cases, Dr. D. concluded:

1st. Auditory disturbances may occur in all forms of nephritis.

2d. They may appear at any time in the course of the disease. In conclusion, as the detection of exudation with or without hemorrhagic spots in the fundus of the eye demands an examination of the urine, so cases of deafness of sudden onset and obscure history, in the same way, may not be without importance for diagnostic purposes.—*Glasgow Med. Jour.*, Dec., 1885.

The best Method of Removing Foreign Bodies from the Ears.—MR. JONATHAN HUTCHINSON quotes from a writer, Mr. Ernest Maylard, the following: "How many unfortunate patients have had the Mt. ruptured by pushing in a foreign body in the fruitless endeavor to pull it out, from ignorance of the curves and direction of the external auditory canal. I know of one case which came immediately under my notice, where death occurred indirectly from the inflammation set up by a foreign body in the ear. The body was extracted, but not until the evils of delay, and vain efforts at removal had rendered the patient's recovery hopeless." Mr. Hutchinson then says that his own experience comprises several cases of this kind, and, while he agrees with the writer as to the importance of good anatomical knowledge, draws attention to a method of treatment which he long ago advocated, and which is so simple and efficient that it nearly takes the need of knowledge. It is the use of a silver wire-loop instead of either forceps or scoop. He has never, since a student, used either of the latter instruments, for the purpose of extracting hard bodies from

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the meatus, and holds they are most dangerous. With a flexible silver-wire loop, or, if necessary, with two placed at right angles, he has repeatedly succeeded when all other means had failed. The loop is not only devoid of danger, but is more easy to use and much more efficient. It is impossible to injure the Mt. or the walls of the canal with the wire-loop. The method of procedure is, after putting the patient under an anesthetic, to introduce the loop gently into the ear and turn it about until it gets behind the foreign body. This it will often do at once, but sometimes a little patience is necessary.

In one instance, Mr. Hutchinson took out a piece of heavy lead with little trouble by using two loops at right angles to each other. The simplicity, safety, and efficiency of this method, makes it desirable that it should be better known.—*British Med. Jour.*, April 10, 1886.

DISEASES OF THE GENITO-URINARY ORGANS.

REPORTED BY WILLIS HALL, M. D.

Tumors of the Bladder, Diagnosis and Treatment.—REGINALD HARRISON, F. R. C S., at the Annual Meeting of the British Medical Association, 1885, read a paper on this subject. As to diagnosis, he says: "Chief reliance will be placed on the circumstance under which blood appears in the urine, the manner in which the mechanism of micturition is interfered with, the presence or absence of evidence of new growth in the excretion, and the direct and indirect indications which may be afforded by the use of the sound or the catheter. He divides tumors of the bladder into two classes or stages: 1. those which, during their entire existence, or, for a portion of it, occasion either slight or no distinct indications of their presence; and 2, those which declare themselves by symptoms, either seriously disturbing the function of micturition, or which, by their constancy or degree, threaten the life of the patient. He is guided as to treatment not alone by the fact that a patient has a growth in his bladder, but by the symptoms it produces, hemorrhage being a prominent one. Venous growths and epithelioma are most frequent, the total disappearance

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of the former has been demonstrated in the post-mortem room, without treatment, whether it be by self-strangulation or inflammatory action, it is impossible to say.

Digital exploration of the bladder, relative to the treatment of these tumors, is called for when it can fulfil at least three objects: 1, the relief of symptoms which are otherwise irremediable; 2, for verifying the diagnosis of tumor; 3, for determining whether the removal of the growth can be proceeded with. Sir Henry Thompson and others favor median perineal urethrotomy for the exploration, while in France, Guyon and Pousson favor the supra-pubic method.

The perineal incision affords better drainage, maintains a more or less permanent contraction of the bladder, thereby controlling the hemorrhage, and gives a shorter outlet for the urine, besides giving access to the most usual site of such growths.

He has had an instrument made in the general form of bladder forceps, except that it is made with a free margin at the point, making it almost impossible to damage the walls of the bladder. This form necessitates setting the jaws of the forceps back a little from the point.

He recommends tne removal of such growths either by twisting with the forceps, ligation of the pedicle, or by the écraseur or spoon.—*Boston Med. and Surg. Jour.*, Aug. 6, '85.

A Tumor of the Bladder Complicated by the Presence of a Calculus.—DR. A. T. CABOT reported the following case to the Boston Society for Medical Improvement, Dec. 28th, 1885:

"Patient, a woman of seventy-three, first noticed ten months ago that her water was thick and brownish. Within the last four months she has at times noticed blood in the urine, and during the past three months she has been suffering more or less pain during and after micturition.

Pain in the bladder has been very severe during the last three weeks, and the frequency of urination has increased until within the last week she has emptied the bladder about once in every hour during the night, and every two hours during the daytime."

On passing a sound, stone was detected which was crushed by the lithotrite under ether. It measured half an inch in diameter. After the first crushing no fragments could be found by the lithotrite, and the tube and pump did not succeed in removing any

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The urethra was dilated, the finger was introduced, and a tumor was readily detected near the site of the right ureter.

"It was a fungous like mass with a broad base, and was, perhaps, as large as two English walnuts. The tissue beneath this tumor was hard, and suggested the probability of its carcinomatous character."

"A vesieo-vaginal opening was made close to the neck of the bladder. Through this, nipping forceps and a sharp spoon were introduced, and the growth was removed till it was level with the bladder wall." Having the urethra dilated made the guiding of the instruments by the fingers easy and intelligent, and shortened the operation, which is very difficult when there is only one opening.

Very little hemorrhage followed the operation, and the patient was relieved of much pain in the bladder. The tumor was found to be a tolerably firm papillomatous growth."

The report was made only three days after the operation, so the result cannot be given.—*Boston Med. and Surg. Jour.*

Malarial Hematuria.—PROF. S. H. BROWN, of Memphis, read a paper on this subject before the Tri-State Medical Society, November, 1885.

The following conclusions are reached by the author, viz.,

That patients whose general health is impaired by malarial influences, or who have had repeated attacks of intermittent, are most liable to have this disease. That all the tissues become charged with bile, stools have the appearance of unmixed bile. Distressing nausea and obstinate vomiting generally occur early in the disease. The vomited matter ranges through many shades of color, yellow, green, black and even blue.

The characteristic red urine appears with the initial chills, frequently clears up entirely during intermissions or remissions, and reappears during succeeding exacerbations. There is total suppression in some fatal cases.

Red urine is highly albuminous, and there are tube casts in abundance. Red color is due to red blood corpuscles, and blood pigments, especially hemoglobin (?).

Out of over six hundred cases collated by Dr. Cochrane, of Alabama, twenty-five per cent died. Malarial hematuria is not relieved by quinine. The remedies so highly recommended by other South

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ern practitioners, such as tincture of muriate of iron, ergotin and pilocarpin, have generally failed in his hands.

He depends principally upon the thorough evacuation of stomach by *warm* water, and *hot* water enemata to empty the colon, using the other remedies when demanded. This treatment to be successful must be frequently repeated, at least twice daily, to prevent the excessive accumulation of bile. This water treatment is almost immediately followed by a fall of temperature, decrease in pulse rate, and improvement in color.—*Miss. Valley Med. Mo.*, Jan'y '86.

Imperforate Urethra—Operation.—THEODORE G. DAVIS, M. D., Bridgeton, N. J., gives the following history of an imperforate urethra, and a quick recovery after operation. Female child, of small size, born at term, 5:30 P. M.

On visiting the mother next morning at eleven, I was told by the nurse that the child had not passed any urine, was very restless and crying continually.

Bladder was distended, and the crying increased when the hypogastrium was manipulated.

No urethra was visible, nor could one be detected until, with the finger in the vagina, the margin of pubic bone was reached, when a cord-like body was felt, which became more prominent and fluctuated when the region of the bladder was pressed upon.

The operation was done by placing the index finger in the vagina, with the tip supporting the end of the urethra and vaginal vault, and forcing a straight trocar and cannula in the direction which the urethra should have occupied, until the point reached the end of the urethra resting on the finger-tip, the bladder being pressed down firmly.

On withdrawing the trocar, a quantity of urine escaped, giving instant relief to the child. The external end of the cannula was depressed, and the cannula pressed upward into the bladder; a small catheter was introduced through the cannula, and the latter withdrawn.

The catheter was allowed to remain in the bladder, being slightly withdrawn on the third and fourth day, and removed on the fifth.—*College and Clinical Record*, Jan'y, '86.

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REPORT ON NERVOUS DISEASES.

BY FRANK R. FRY, M. D.

Spasm in Chronic Nerve Disease. — SEYMORE SHARKEY, M. D., F. R. C. P., lecturing on this subject, says: "It is convenient, and I might almost venture to say, scientific, to divide the motor mechanism into a cerebral system, and a spinal system. For our present knowledge of anatomy, physiology and pathology does not justify us in concluding that there is any efferent motor connection between the brain and the spinal cord, except the pyramidal tract, direct and crossed, diseases of which give rise to chronic muscular spasm. * * * * * * * *

"Muscular tone is that condition of tension in the healthy muscles, which is, no doubt, due to nerve-impulses proceeding from the cells in the anterior cornua of the spinal cord. * * *

"In short the excessive tendon reflexes and contractions which result from descending sclerosis are merely evidence of the abolition of the functions of the cerebral motor tract, which in health controls the action of the spinal ganglia."

He treats his subject under three heads:

1. Spasm in connection with the central motor mechanism; 2. Spasm in connection with the spinal motor mechanism; 3. Functional spasm. — *Brit. Med. Jour.*, March 20 and 27, 1886.

The Physiological Studies of the Knee-jerk and the Reaction of Muscles under Mechanical and other Excitants. — Under the above title a very valuable article has recently come from the busy pen of DR. S. WEIR MITCHELL. He begins the consideration of the subject by the following statement:

"The discussion as to its (the knee-jerk's,) true parentage has also been narrowed so far as to enable us to feel sure that the blow on the tendon causes motion in the related muscle, not owing to an afferent impression from the tendon, but either to a direct irritation of the muscle concerned, *i. e.*, direct muscular response, or to the pull on the muscle causing afferent sensory impressions to the cord, and efferent motor response, *i. e.*, reflex action."

As the result of numerous experiments, many of them very

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interesting, he has determined the following points, and many others that we have not space to mention at present:

The k. j. (abbreviation for knee-jerk) varies in health: it may be exhausted by too much use, and may be increased from frequent excitation.

"All volitional acts, if strong enough, may increase the k. j. of either leg, and even such small acts as winking, etc., are competent to do so under favoring circumstances.

"An act of will directed to a part which is functionally inert, or to amputated parts, reinforces the k. j. Hence it is not the muscular motion which is the essential factor. [When a voluntary motion of one muscle controls the amount of reflex actions of another muscle on some other region of the body. — F.]

"All abrupt impressions as of pain, heat, cold, anywhere on the skin, increase the k. j.

"Elbow, ankle and jaw-jerks obey the same laws as the k. j.

"All sorts of faradic currents anywhere, if strong enough to move muscles, increase the k. j.

"Short galvanic currents, not strong enough to move muscles, give, under certain conditions, marked increase to the k. j.

In concluding he says: "Well known facts and the researches here stated, have led me to believe that the k. j., and other like responses to tendon taps are direct muscular acts; they cannot exist without that spinal contribution known as tone, which is capable of increase from a variety of causes. The muscle-responses to a pull on the tendon, cannot be reflexes, for the latter are inhibited by violent sensory stimulations, which are here shown to increase the k. j. The true skin reflexes are incapable of being reinforced by distant volitional muscular acts, like the k. j., and have a time far greater than that of the k. j. — *Medical News*, Feb. 13 and 20, 1886.

The lucid statements of these two writers will certainly help some of us to fix in our minds some of the points of this perplexing and much discussed question of the reflexes.

The Limit of Therapeutics in Infantile Paralysis. — V. P. GIBNEY, M. D. He shows the vagueness of the term infantile paralysis, and discusses the points that should guide us in prognosis. He says: "I am prepared to hear men state, in meet-

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ing and out of meeting, that they have cured infantile paralysis with this agent and that, for I know not which one of the paralyses that occur in infancy they have encountered, but I am not prepared to hear one state that he has cured a case of poliomyelitis anterior occuring in infancy. — *New York Medical Journal*, April 3, 1886.

Cerebral Syphilis. — HERBERT G. LYTTLE, M. D., says: "Wilkes makes the statement, confirmed by Dowse, that in those cases where the primary and secondary symptoms are least marked, the viscera and nervous systems are afflicted in an inverse ratio. Fournier says: 'Light primary symptoms give the greatest quantity of tertiary accident.' This question, and the question of curability of syphilis cannot be answered hy the specialist. It is the general practitioner who must decide this problem. If he (the patient) develops some nervous affection after a few years, he goes to his family physician, or to a neurologist, not attributing his trouble to his old attack of syphilis, and nine times out of ten he will deny that he ever had the disease."

"Cerebral syphilis has always been supposed to be a late manifestation of the disease, but of late very many cases have been reported as occurring within a short time after the primary sore." The writer then gives some statistics in support of his statement.

"Syphilis may affect the brain in the following ways: By pressure from gummatous growth from the cranial bones, or, from the membranes of the brain, rarely by growths coming from the brain substance itself, and lastly by diseases of the blood vessels of the brain.

"Every symptom of every cerebral affection may be produced by syphilis.

"The treatment of cerebral syphilis is, of course, by mercury and iodide of potassium, the former is curative, the latter palliative."—*New York Medical Journal*, May 1, 1886.

Imbecility with Choreoid Movements.—FLETCHER BEACH, B. M., M. R. C. P., etc., reports to the Royal Medical and Chirurgical Society, the case of an imbecile patient, of fairly high type, aged 17 years, who, as the result of epileptic fits, lost some power on the left side, and afterwards continuous spasm of the left hand and arm was noticed. A description of the movements, which

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ceased shortly before death, is given. At the autopsy, the parietal regions of the brain were more resistant than normal, and the occipital convolutions were firm and hard; the white matter of the first temporo-sphenoidal convolution, of the inferior parietal lobule on both sides, and of the occipital convolutions, on a level with the middle part of the lateral ventricles, appeared fibrous.

The chief changes noticed microscopically were: 1st, great increase in the number of the vessels; 2ndly, distension of many of these vessels; 3rdly, extensive infiltration of the tissues with leucocytes, especially in the perivascular sheaths of the vessels.

The case is regarded as one of post hemiplegic disorder of movement, allied to those described by Dr. Gowers (*Med. Chir. Trans.* 1876). The difference between the symptoms noticed in the athetosis and in the disease under consideration are contrasted; the essential difference being that, according to Dr. Gowers, in the mobile spasm seen in partially paralyzed limbs there is a fixed spasm superadded to the mobile spasm.

The pathology of the affection is then discussed. Dr. Gowers says: "The symptoms point clearly to damage to the gray matter of the brain, to local perverted nutrition of nerve-cells in consequence of which they overact, either spontaneously or on the stimulus of a volitional impulse, which is by their overaction perverted or irregularly distributed." In the case under notice, great congestion of the gray matter of the brain was present, and it is held by the author that the microscopical appearances present are pathological. The theory that the nerve cells in this case, have overacted from perverted nutrition due to excessive supply of blood, and hence the spasms, is brought forward. Mention is made of the fact that similar appearances have been noticed in the medulla from a case of hydrophobia, and to a less degree in the spinal cord from a case of tetanus.

INVESTIGATION OF WATER SUPPLY.—The Syracuse board of health has asked for an appropriation of $1,500 to meet the expenses of an investigation of the sources of water supply for that city.

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SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting April 5th, 1886.

Stem-Pessaries.

Dr. Papin.—I have here a pessary, a ring supported by a stem, which I removed from a young woman whose history is rather interesting. Some fifteen or sixteen years ago when she was but seventeen years old, a red-headed, hot-tempered Irish girl, with more nerve than muscle, she undertook to move a kitchen stove which two men had refused to move because it was too heavy. She succeeded in moving one end of the stove and twisting it around, and, at the same time, her womb came out into the world through the hymen and all. I saw her shortly afterwards. I performed an operation which was then recommended, and replaced the womb. She married with a complete procidentia. The womb was pushed back on all proper occasions, and she became the mother of three or four children. She had the most terribly lacerated os uteri that I ever saw. The neck of the womb was two and a half inches long, and it was terribly torn. I brought the parts together and measured it as well as I could. She is now pregnant four months, and feeling some inconvenience and discomfort from the child not being yet large enough to keep the womb in position, she got this machine and put it in herself. She has used almost every pessary that has been invented. This was something new, and it struck her fancy, and she bought it and wore it twenty-four hours I think. When I saw the patient, the neck of the womb was strangulated and cold. She was already feeling the motions of the child above. I found that it must be removed and speedily, so I sawed the pessary through with the assistance or Dr. Newman and Dr. Papin, Jr.; and we contrived to slip it off, scratching and tearing the parts almost to pieces. Both these assistants have had considerable experience,

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and both of them concluded that she would miscarry that night, but she has not miscarried so far; on the contrary, she is doing very well. The parts were returned to their natural position, and, with the exception of the scratches which I made in sawing the pessary through, no injury has been done.

Dr. Boisliniere.—That is a modification of Dr. Babcock's pessary, is it not ?

Dr. Papin.—I think it is. The danger with these pessaries is just what we had in this case, strangulation.

Dr. Scott.—Under what circumstances would you use Babcock's pessary ?

Dr. Papin.—I don't like the Babcock pessary at all, but it is less objectionable than this, because there is no danger of strangulation. Many who have worn them say they are comfortable.

Dr. Briggs.—Did you ever have a case before in which strangulation occurred ?

Dr. Papin.—No sir; this is the first such case I have ever seen.

Dr. Gehrung.—Not having seen such cases myself, I would like to ask if the strangulation was such that the parts might not have been compressed and the blood worked out so as to allow it to pass through the instrument, as for instance, paraphimosis may frequently be returned in that way.

Dr. Papin.—That was not possible in this case. The parts were purple, and would have been gangrenous in a short time. I remember a case that I saw with Dr. Pope of a man who was stabbed in the side with an ordinary pen-knife, causing a portion of the omentum to protrude. This had been enlarged and engorged to such a degree that it looked like a piece of lung tissue. He asked me what was the remedy. I said to cut it off, he said "Yes and kill the man." He took hold of this tumor and very dextrously returned it completely, and then by using a little piece of adhesive plaster, he held it in place and the man in a short time was over all his bad symptoms.

I would like to ask Dr. Gehrung about the use of pessaries. I have at present a patient on hand on whom I operated last January a year ago, for bilateral laceration of the os uteri, and, as I supposed, had overcome a very bad retroversion. I succeeded in making a virginal os, but the retroversion is still there. I have tried every kind of pessary except Gehrung's pessary so far, and the woman complained so much of pain produced thereby, that I have

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given up the use of the pessary entirely. On last Sunday I saw her and packed the anterior cul-de-sac with a tampon of cotton and glycerine, in which I generally sprinkle some iodoform; it gave her some relief. I want to know what has been your experience in these cases of irritable vagina.

Dr. Gehrung.—The ordinary retroversion pessary, modified and adapted to the case, at the most would retain the womb, but the doctor must so modify the pessary that when the womb has been replaced it will hold it there.

Dr. Papin.—This case is a very difficult one to treat, because of the extreme sensitiveness of the parts; it is almost impossible to do anything without giving her pain, even a soft pledget of absorbent cotton put into the posterior cul-de-sac, instead of anterior to the neck of the womb, gave her great pain.

Dr. Gehrung.—This soreness apparently of the vagina, is it retro-uterine ?

Dr. Papin.—I think it is.

Dr. Gehrung.—It is probably due to some enlarged lymphatic retro-uterine glands, to lymphangitis of the parts. If the womb is placed in complete anteversion by manual movement, and the pessary put in the cul-de-sac, it does not touch the anterior part of the womb. It touches only the vagina and probably that sensitive part and compresses it; and I would absolutely forbid the use of a pessary in that case under such circumstances. I have frequently seen cases where it was said a pessary could not be borne, and I have introduced them so they were tolerated at once, because I secured that there was no retro-uterine pressure. The uterus was replaced and a pessary was introduced so that it did not touch the uterus at all but only the vagina. In answer to your question about the Gehrung pessary, I would say that the pessary cannot replace the womb, there is a tendency to throw it down still more on the principle of carrying the anterior fornix of the vagina still more forward, making more room and actually capsizing the womb completely. This probably would still happen in this case.

Dr. Papin.—The os and fundus are on a line parallel with the horizon. The os impinges on the bladder, the fundus upon the sacrum or rectum as it passes underneath the sacrum. My idea is that the double bar of the Gehrung pessary, the lower bar, would keep the womb down instead of allowing it to get up. I have found the Gehrung pessary a very useful instrument in certain forms of retro-

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version as well as anteversion: in fact I have used it more frequently in anteversion.

Dr. Gehrung.—The Gehrung pessary does not simply go in the front of the vagina, it does actually get its purchase in the posterior vaginal fornix on both sides. As to the statement that the anterior bars of the instrument would press down the cervix, I think it not admissible. To let the pessary work on the neck of the womb is always very dangerous at the best, because the neck of the womb would generally enlarge and swell over the bar and enclose it or be strangulated by it.

This reminds me of one of those English pessaries, Greenhalgh's, which has a number of rubber strings. I saw a woman who had one of those pessaries. The rubber had cut into the neck of the womb,and the cervix had closed over it from below, so that actually the rubber band was like a string through a bow. I remember a case in which one of these pessaries was used, and the patient calling the next day I found the rubber strap had cut into the cervix so that I could barely get it out again, almost causing bilateral laceration of the cervix within twenty-four hours. Elastic substances should be kept out of the vagina. They cut just as an elastic string would cut off a limb if used in surgery.

HYSTERICAL APHASIA.

Dr. Briggs.—I was called on Saturday to see a girl, æt. 16. I found her in a condition of opisthotonos, with the right foot turned in; her shoulders made a very stiff arch; her face was red. She had menstruated a fortnight before. She had a little pain in her bowels, and as she was a vigorous young person, I concluded that the best thing would be to purge her. I directed the nurse to give her croton oil and one or two other remedies, followed by an enema. In the course of an hour or two, when I returned, I found that the application had almost immediately produced an evacuation from the bowels, and that she had had no opisthotonos since. She was conscious but made no reply to questions, but indicated by motions that she had pain in her head and in her bowels. She had not a very good pulse and I gave direction for necessary treatment for relief of her pain. The next day I saw her, and she had had no recurrence of the opisthotonos, but she could not speak. I endeavored to get her to speak, and she would assume a strained position of the head and mouth, but would not even whisper. I came to the

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conclusion that, whatever other element of disease there might be in the case, there was probably a strong hysterical element; there was a history of some night seizures, and I came to the conclusion that I would be able to cure the aphonia and aphasia, but delayed doing so. On Tuesday I found the pulse to be more regular, and I adopted what I thought would be a safe plan of action, ordering some ammonia and chloroform to be applied on raw cotton with a piece of pasteboard on top to prevent evaporation, and then encouraged her to speak. She went through some very ridiculous motions of her face, and even attempted to whisper. She certainly would have done so if it was merely a difficulty with the vocal cords. I then told her to put out her tongue, whereupon she put the tip of her tongue against the hard palate, but did not put out her tongue, at least she did not protrude it from the mouth. I told her I thought I could make her speak; that there were some nerves in this part of the body, indicating the abdomen, that were not in proper condition, but that I could make such application as to correct any irregularity and cause her to speak. I then made the application to the abdomen, and told her she would soon get the power of speech. It was not long before I said to her, "now say 'A,'" and she said "A" in a whisper. We then made a larger application, and finally, after a good deal of difficulty, got her to say "Mary." She complained that she could not eat, but I got her to say "Give me some dinner," quite audibly. I told her that would be enough for the first day. I told her to get up and walk, and I found that when she walked she still had the turning in of the foot. I saw her next day; she was unwilling to talk, but had spoken a little. I had told them to walk her around the room, and they said she had made no objections to walking about, but she hobbled a good deal as she walked. Although I was sure in my own mind that there was a strong hysterical element, I was afraid that there might be something else, so I took my friend Dr. Hermann there with me, and he examined the case very thoroughly. We held out various inducements for improving her speech, representing that we might shave her head and make applications to the top of her head with good effect, and, as she was extremely devoted to her hair, we thought that would develop her will. Then we talked of passing an electric current through the larynx. She not knowing what an electric current was, we thought that might have some influence on her also, as we desired to stimulate her will. Then we

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got her to walk: she walked with considerable trouble and a good deal of tottering, and I noticed there was an inclination to fall backwards. Of course we would not allow her to fall, but I am not absolutely sure that she would not have fallen, if we had been hard-hearted enough to let her run the risk, but she tottered a good deal at any rate, and I think my friend was of the opinion that, although her symptoms resembled those of ataxia, it was pure hysteria.

Dr. Gehrung.—Has the doctor any explanation of the rationale of the treatment?

Dr. Briggs.—Nothing except simply that I had an idea that we would stimulate her will power, so that she would relieve herself.

Dr. Gehrung.—Don't you think you actually mesmerized her to that extent?

Dr. Briggs.—I hardly think so.

Dr. Gehrung.—I think you actually told her, "you can do that; this medicine will enable you to pronounce the letter A;" it had an effect on her will power such as to enable her to pronounce the letter A. I think that is more probably the explanation than that the medicine itself had any effect on the will power.

Dr. Papin.—How is it that when the remedy is not carried out, but merely threatened, it does not affect the will power.

Dr. Gehrung.—The threatening has the same effect; it is not the remedy, it is the threatening; you threaten to do so and so, and the fear of the execution of such threat will bring such an action upon the patient as to make her recover. I have seen patients in an hysterical fit when the door bell would ring, and they were out in an instant, before the person could come into the room, and I know that it was not an imposition in this case. These cases actually do occur by some strong impression acting upon the person's understanding.

Dr. Papin.—I have seen such manifestations myself. I have seen ladies who were extremely hysterical every time their husbands walked into the house, and they grew lively every time they went out of it.

Dr. McPheeters.—You have no idea that your remedy had any effect on the patient except so far as they acted on her mind—on her imagination and nervous system?

Dr. Briggs.—Only in so far as I stimulated her will.

Dr. Gehrung.—I think these patients are frequently ill-treated by physicians, because they cannot help themselves. They are

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really diseased. Then, again, I don't think anything is gained by these means. You get them temporarily over the spasm before its term is out, but they pay dearly for it afterward; the spasm recurs at an earlier day than it would otherwise. These spells are actually a kind of explosion of an accumulated something called the nerve fluid. If you prevent the full extent of that paroxysm then, the period would probably come at an earlier date than it otherwise would. After careful study of the subject, I have come to the conclusion that if I have a patient in that condition the very best treatment is to let her perfectly alone, turn down the lamps and stop all noise, and put her in a position so that she cannot injure herself; give her no medicine whatsoever, as I do not believe that any benefit is derived from medicine. If you give chloroform, ether, morphine, you make no good impression on the patient. Of course you may, for a time overcome the paroxysm, but when the effect of these remedies has passed off, you leave the patient in an unsatisfactory condition, in which she will probably remain for a long time. I think that, unless we have a prolonged case of hysteria, hysterical paralysis or hysterical aphonia, or some such chronic condition, it is more desirable to let the patient alone and allow her to come out of the condition herself. Of course, if we can cure the case by medicines or massage or anything of that kind, it is perfectly justifiable to do so; but where it is not possible to cure the disease, we should allow the patient to come out of the paroxysm herself, simply taking the precaution of preventing her injuring herself.

Dr. Scott.—I should not like to adopt the course of treatment suggested by Dr. Gehrung, because I believe that the thing may be arrested. I have seen these paroxysms arrested just by the kind of treatment Dr. Briggs has suggested. I have done this quite a number of times, and I believe it is our duty to arrest these paroxyms, if it is possible, no matter by what means. We should put our patients on treatment proper for their condition; but as for standing idly by, and allowing patients with hysterics to be left alone, when they are sometimes screaming, sometimes throwing themselves about, or in a condition of opisthotonos, we cannot afford to do it. To be sure, in many cases these paroxysms are self-limiting to a certain extent, yet if we have remedies we should apply them in order to arrest the paroxysms. I have on several occasions used the very remedies which Dr. Briggs has mentioned. I

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have taken a sponge, saturated with equal parts of chloroform and ammonia, and applied it over the pit of the stomach and held it there; and I would say to my patient, "this will bring you to after a while; it is a very powerful remedy." When they begin to complain of it and to talk, I take it away. Then I would tell the nurse, if she loses her speech again to re-apply it, and it would not have to be applied more than two or three times before the patient would be herself again.

Dr. Papin.—The most interesting case of hysteria I ever saw lasted ten years before the patient was relieved. It was the result of a squabble between the woman and her husband. She got a spasm of the esophagus, and every time she attempted to swallow the least particle of solid food, she almost died in convulsions. She gave up all idea of eating solid food, and could only take small teaspoonfuls of liquid at a time. She became a perfect shadow. I tried everything in that case and gave up, being unable to benefit her. I then tried Dr. Gehrung's remedy and let her alone. After ten years I met her at the church door, and I thought she looked unusually well. I told her so, and she said, "Doctor, I have eaten all sorts of things for the last two weeks;" and then she told me that one day, in coming out of the church early in the morning and going along the street, she met a little boy with a loaf of bread under his arm, and she gave him ten cents for the loaf which he willingly accepted, it being only a five cent loaf, and she began to nibble at it, and before she got home she had eaten the whole loaf. She then sat down and ate a beef-steak breakfast, it being the first solid food that she had eaten in ten years.

Dr. Gehrung.—Dr. Scott's remarks indicate that he misunderstood me somewhat. Of course I did not mean that we should allow any one to be sick and do nothing for them, if we have a remedy; I did not say that we let the patient alone and do nothing; because those patients will scratch themselves or tear themselves tear their hair or their flesh from the face and neck and head, or knock their teeth out, or bite their tongue, or even throw themselves from the bed so as to disable or kill themselves. I did not say that we should allow them to do this, but that we should prevent them from hurting themselves, and that means a good deal in some cases, because I have seen four men engaged in performing that duty, and then they have not succeeded.

Dr. Briggs.—In this case there was no question that it was a

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case of hysteria. After I gave a purgative, the bowels moved. Then, again, I got a very good result from the treatment with the chloroform and ammonia, and this good result has continued ever since; she is still improving. I have adopted the same treatment in a previous case where a woman undertook to make interest for herself. She said that she had been bitten by a dog, and that when the same month came around she was under obligation to bark like a dog for a certain length of time. I was called to see her one day, and found her lying on the floor, while a number of women were engaged in sewing her up in a bedquilt, and the garments of those engaged in the fight were scattered around the room; she was endeavoring to prevent them from sewing her up, and barking all the time after the fashion of a dog. I got this little remedy which I used in this case, had them rip open the covering opposite her stomach, and, after baring her stomach, applied it. After it had been applied for a very few minutes she said, "Doctor, take that away, and I will do anything you want." In another case a young woman became cataleptic. Her head was twisted rigidly to one side, and her face fixed in one direction, and if her head was moved in a different direction, it would go back with a spring. While I was attending to her, a young woman standing by the side of the bed came around to the other side of the bed, and, to my utter astonishment, I saw this rigid head turn around, and when I endeavored to twist it back into its former rigid position I found it impossible to do so. I then got this young woman, who was the fascinator in that case, to get the cataleptic out of bed, which she did, the cataleptic clutching her convulsively. They were both about the same age. Then she walked the patient along the room, some thirty feet at least. I got this young woman who acted as the fascinator to come back to the bed, having let go of the patient, and the patient walked across the room in a lumbering sort of way, and again clutched hold of this young woman. These strange maneuvres went on for several days, and I at last took my friend, Dr. Bauduy, to see the case with me; but, strange to say, on the very morning that he went, some change of the system, the cause of which I do not know, took place, and she came out from under this hysterical influence. The fascination was afterwards transferred from this young woman to a figure of the virgin on the altar, and this had just as much influence on her afterwards as the young woman had at first.

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Dr. Boisliniere.—Did she pass a great deal of clear urine?

Dr. Briggs.—I don't recollect.

Dr. McPheeters.—That is the usual feature with these cases, a large quantity of urine is passed at the time that the paroxysms cease. The great point, I think, in the way of treatment is to convince the patient that you are going to relieve her, and it is a good plan not to treat the matter lightly before the patient. It is a disease, a morbid condition of the nervous system. But, while recognizing the matter as not being the grave condition it at first appears, still it is well to treat it as such before the patient, and convince her that you are going to cure it. There is a great deal in impressing upon her the fact that you are going to relieve it and and that speedily. My rule, if they can swallow at all, is to give them a mixture of Hoffman's anodyne and tincture of valerian, and sometimes to give the bromides and sometimes preparations of opium.

Dr. Papin.—Speaking of the variety of the phenomena of hysteria I have been recently in consultation in regard to an interesting case. A young lady at a boarding school some two or three miles from here, who is originally from Texas, has been troubled with hysteria. She is the only daughter of very healthy parents and a very beautiful girl, of a nervous, bilious temperament, southern in all her attributes and ideas. At the age of sixteen, for the first time, the catamenia appeared with a great deal of pain; there was barely a spot, as she expressed it, again in two months; and then it became regularly established, accompanied more or less with dysmenorrhea, but a very slight tinge, scarcely enough to soil a napkin, lasting never more than a few hours. At the age of sixteen, when this function was established, instead of being put on horseback, to play and romp and make blood and flesh, she was sent to school. Being ambitious to learn everything, she has applied herself so closely for the last two years that she has gradually brought on the condition for which I was consulted. During this time she has also been growing very rapidly. Her bodily strength has failed and she has become constipated, has nervous headache constantly. Last September the catamenia entirely disappeared. Within the last two or three months she says that she has been constipated for two or three weeks at a time, and that she has not passed her water for a month. I listened to her story of course, without moving a muscle of my face, and then came to the conclu-

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sion what was the matter with her. She said that she frequently goes for four or five days without passing any water; that she had not passed any for forty-eight hours. Still, I said, it is very easy to ascertain if there is any in the bladder. Now I do not question that that child is pure minded; she has been well raised and is a Christian girl, but she has this melancholic idea in her head that she could not void her urine and that something was the matter with the bladder or uterus or abdomen; she thought she would submit to anything, and she readily submitted to an examination. I proposed to draw her water, and she modestly but willingly submitted to that. She blushed and trembled so that I know it was by an effort of the will that she submitted. I introduced the catheter and drew off a quart of clear limpid water with no odor of ammonia about it, not even the ordinary smell of urine that has stood for a few hours in the bladder or in the chamber. I am satisfied that water had been secreted within the last six or twelve hours, that consequently she must have voided her urine before that. But under no circumstances would she make an admission that she had voided any urine for forty-eight hours. I had formerly seen such a case at Paris in which a girl when closely watched had swallowed her urine rather than that it should be known that she voided urine. Now this form of hysteria is certainly very distressing and one that is not easily overcome. My advice to the lady principal of the school was to send her home and let her run wild in Texas, let her turn cow-boy, if she chose, and develop herself physically, establish the catamenia, and, at the same time, relieve the constipated condition of the bowels. A leucorrhea had really made its appearance at the time I examined her; it was rather profuse. I advised both local and general treatment, something of a tonic character with vaginal injections, to overcome this tendency to leucorrhea, and am very sure that the girl will recuperate and recover her health.

Dr. Scott.—Don't you think she will recover without the use of vaginal injections at all, by the restoration of the normal conditions?

Dr. Papin.—I believe so; I believe that this catarrhal affection of the vagina and os would be overcome in that way, but I discovered that she had a cervicitis more or less pronounced, and I am satisfied that the local treatment would aid it.

Dr. McPheeters.—It is characteristic of urine passed during an hysterical attack, that it is colorless and without odor and very abundant.

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Dr. Papin.—In this case it had not the hysterical character, it was rather straw colored than otherwise, very light colored; but I have seen healthy urine look like it, and it did not have any odor of ammonia. I held the vessel quite close to my nostril, and I could detect no odor of ammonia, but just the simple and ordinary smell of fresh urine.

PERMANGANATE OF POTASH AS AN EMMENAGOGUE.

Dr. McPheeters.—I would like to ask Dr. Boisliniere if he has ever tried the permanganate of potash as an emmenagogue?

Dr. Boisliniere.—I have tried it and gave it up. The great objection to it is that it must be given on an empty stomach, as it will burn up any food that is on the stomach; therefore I replace it by the black oxide of maganese; I use it in from fifteen to twenty grain doses.

Dr. Papin.—I am glad to hear that; I have used permanganate of potash, and it has disgusted me.

Dr. McPheeters.—One of our manufacturing chemists has prepared a tablet of it which is said to be tolerated by the stomach.

Dr. Boisliniere.—The effect of the permanganate of potash upon the food in the stomach is overcome by combining it with fuller's earth. A case of hysteria I attended in a servant girl, a very powerful girl, to whom I was called in a hurry and found her screaming and screaching. I poured in her mouth at least a gallon of cold water. This cold water acts on the celiac plexus and it caused her to recover immediately. Another remedy which I use is ipecac, it produces an impression very soon.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, April 20th, 1886. Dr. J. M. Scott in the Chair.

GALVANISM IN GYNECOLOGICAL PRACTICE.

Dr. Engelmann made some remarks with regard to present use of the galvanic current in gynecological practice. In his clinic in cases of chronic enlargement of the uterus and in cellulitis, very striking results have been achieved. One was a most characteristic and striking case in which the galvanic current was used to reduce a chronic enlargement, hyperplasia which followed a severe

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laceration of the cervix. The patient, a very strong, robust lady, had been in the very best of health until the birth of her first child, after which she began to fail, and her nervous system thoroughly gave way. She had been suffering for some five years, gradually growing weaker and more nervous, a variety of neuroses presenting themselves; she had not conceived and suffered agonies during the periods. She had that most common of all conditions which follow laceration, a hyperplasia, subinvolution and retroversion with a relaxation of the vaginal walls, but her most agonizing symptoms were due to the neuroses. She could not walk up stairs without stopping and panting for breath; she could not walk above a square in her best condition. During the monthly period the pains were agonizing, she could not lie in bed, she could not sit up; she lay on the hard floor. The laceration was deep and the lips were everted, eroded. With treatment the condition somewhat improved. The pain was overcome, the retroversion somewhat better, but her neuroses were not much improved. She was somewhat better but still suffered intensely. If she walked a few squares, there was panting for breath, rapid beating of the heart, dimness of the eyes, and so on. Dr. Engelmann used the galvanic current by inserting as the negative pole a needle, or rather a small trocar about the size of the lead in a lead pencil, to the depth of an inch into the cervix, and applying a strong current for five minutes, the positive pole being a large electrode perhaps twelve inches by six, on the abdomen. She was greatly relieved, and after three days there was an evident relaxation of the cervix. With the second application the neuroses disappeared, especially the compression of the chest as if constricted by an iron band, and the rapid beating of the heart which had been so annoying, passed away while the current was still used. Two days afterwards she attended a ball, went up two flights of stairs, ran up ahead of the party, and was entirely free from any annoyance whatsoever. A month has passed, and she has been in perfect health since. He did not expect such a result, but had intended to reduce the size of the uterus. It may have been that the needle cut somewhat into the tissue and caused a relaxation of the tense fibres around the lacerated os; and this may have caused the sudden cessation of the symptoms. He had not seen it occur in any other cases, but the diminution of the hyperplasia was just such as he had seen. It was one of the most striking among constant good results. Although some patients seem to bear the administration either of

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the galvanic or faradic currents, there are constitutional symptoms produced by these local applications, favorable in some cases, unfavorable in others. But even in cases in which the local result is good, the constitutional effect is often such that we must cease its use. Almost invariably where able to proceed with the treatment a process of absorption or retrograde metamorphosis was produced. It is certainly a most useful application in chronic enlargements, whether of the uterine tissue or of the cellular tissue. Especially where there is a decided localized thickening we can use it with success.

Dr. Fry asked why Dr. Engelmann only attached one pole of the battery to a needle, why he didn't introduce both of the poles of the battery into the cervix attached to two needles; also why he diffused the electricity from the positive pole to such an extent instead of having the positive pole attached to an ordinary electrode.

Dr. Engelmann said that in former times it was the custom to pass both needles into a tumor. The result achieved was a mixed one, giving the effects of both negative and positive poles, which are very different. The positive pole is a destroying pole, the negative pole has an electrolytic effect, which the positive pole has not. The old method was to place a round electrode against the uterus, a very trifling insignificant procedure compared with this, and with very slight results. He introduced the negative pole armed with a needle into the hyperplastic tissue in order to get the electrolytic effect localized. The positive pole would burn a hole, and would cause a certain amount of sloughing and ulceration. It has no electrolytic effect, causes destruction which is not desired. An ordinary electrode connected with the positive pole would burn a hole on the abdomen, and consequently, in order to utilize so powerful a current he diffuses it over the entire abdomen with a large electrode thus being able to use a current powerful enough to produce the effect desired and to prevent an injury to the tissues.

Dr. Bremer asked how many cells he used to produce an electrolytic effect?

Dr. Engelmann said that he used a current of sixty milliampères.

Dr. Bremer thought that would be rather weak, and again asked how many cells were used and whether he had a galvanometer attached to his battery?

Dr. Engelmann said that he had a galvanometer.

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Dr. Bremer said he was not familiar with the milliampère, but even six of the common zinc and carbon cells would give a strong current if the needle was introduced into the living tissue. It is the old question between the galvanocautery and electrolysis. As a rule, whenever surgeons attempt to remove a tumor by electrolysis they in reality use the galvanocautery, and the inflammation set up produces a proliferation and secondarily a contraction of the cicatricial tissue. Dr. Engelmann had said that with the positive pole he might burn a hole in the abdominal surface. He himself thought that it was the negative pole that is the milder pole; everybody can make the experiment on himself. The positive pole is the anodyne pole, whereas the negative pole is the one which produces pain and is the more destructive of the two. At least that was his conception of the two poles.

In regard to neuroses cured by this process, he alluded to a case which was cured in a very short time, and in which there was a chronic hyperplasia of the uterus, with a most abominable train of neurotic symptoms. That case had gone through the hands of neurologists and gynecologists without effect, and was cured by a magnetic physician in about two sittings. All her neuroses were cured, and thongh she couldn't go up stairs before, she was now able to undergo all sorts of exercise and fatigue. He thought such a large electrode, a foot in length, and a new remedy might have a very powerful effect upon the imagination of the patient. He greatly doubted the real cure of such symptoms in so short a time if really due to the uterine disease.

Dr. Engelmann said it was difficult to discuss questions with no common point of understanding. If it was noted that the galvanometers made in the East, many of them do not go higher than twenty milliampères,it would be evident that a currant of sixty milliampéres is very powerful. One of the best manufacturers of these instruments in Paris, used to make all his galvanometers only up to thirty. It had only been within the last year that a physician, in Paris used the battery for fibroids, and had one made up to one hundred and fifty. Dr. E. had one made of the same kind, which he used for the destruction of fibroids, going as high, for instance, as one hundred milliampéres.

A change in the size of the electrode causes just as much difference as a change in the number of cells that are used. With a needle in the tissue and an electrode on the abdomen with ten

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cells one may produce a powerful electrolytic effect. Now, leaving everything else as it is and changing this electrode on the abdomen for another one with the same ten cells, we may barely get a divergence of the needle. Of course the size of the cells makes a difference also.

He did not mean that the positive pole would burn a hole in the abdomen as contrary to the negative pole, but merely, that an electrode placed on the abdomen with a current of sixty milliampéres would burn a hole, if a small ordinary electrode was used. As to the difference between positive and negative currents, where he had introduced a negative pole needle into the tissue there was no destruction. The tissues were white for a little distance around the needles, within two days there was a small depression. If he should introduce the positive pole in this way, it would burn the tissue — would approximate a cautery effect.

The simple fact, is, that if we place both poles with electrodes against the tissue the ngative one will burn a hole into the tissue, but it does not destroy as the positive pole does ; it does not char. That the positive pole is easing to pain, he took to be the case, but only with ordinary currents, currents of two or three milliampères, perhaps, with a sponge electrode or a carbon electrode covered with buckskin.

Dr. Bremer said he did not see how the action of such a powerful current could be called electrolysis. In his mind electrolysis implies only a decomposition of the fluids of the tissues without destroying the tissue. He knew from personal experience that even very weak currents applied to the skin will have an almost cauterizing and not an electrolytic effect. In a case of true keloid, of four years duration, in a girl about fourteen years of age, he was using what he called "electrolysis," that is to say, a very weak current; and still it is very painful to her.

The growth is about half an inch long and half an inch wide, irregular in shape and on the cheek. The positive pole was not so painful, but it had about the same electrolytic effect, and the tumor has been gradually diminished. With the positive pole he used a current for two minutes; whereas, the negative pole he used for four minutes. This patient had been under his care six or seven months, and he found the ratio of diminution about the same with the two poles.

The sittings were fifteen minutes long, sometimes half an hour.

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On removing the needles no blood appeared, which he considered another proof that the action is that of the galvano-cautery and not electrolysis in the strict sense of the word. In cases of hydrocele, in which the results are, as a rule, most brilliant, he uses weak currents and dispels the enormous mass of swelling within eight days. A good many of them return, and some of them refuse to be cured, but a good many of them, especially the cases of more recent date, yield with the greatest promptitude imaginable.

Dr. Fry suggested a doubt whether we have any true electrolysis in a tumor unless we introduce both poles into the tumor.

Dr. Engelmann thought that such effects as he had seen in the treatment of fibroids, the diminution of large tumors to an insignificant size without any suppuration, could be regarded as nothing else than the result of electrolysis.

Dr. Bremer queried whether it might not be due to destruction or obliteration of some nutrient vessels by the galvano-cautery.

Dr. Engelmann said it would be a very strange thing under such circumstances, just to strike the vessels.

Dr. Bremer said that these uterine tumors are generally very rich in vessels.

Dr. Engelmann asked whether in that case, we wouldn't have bleeding.

Dr. Bremer said that the powerful current used, would char everything.

Dr. Gregory said that while the capsule is very vascular, the mass of a fibroid is very anemic; there is very little blood in it.

Dr. Shaw read a paper on

VASO-MOTOR PERTURBATION IN THE ETIOLOGY OF PNEUMONIA.
Vide p. 22.

Dr. Bremer remarked that Galen maintained that all diseases were of nervous origin. One hundred years ago, or more, the pathologists said inflammation in all its forms is a vaso-paralytic affection. Claude Bernard performed an experiment, with which we are all familiar, of cutting the sympathetic nerve on one side, the consequence being an engorgement on that side, hyperemia and true vaso-paralysis. But an animal will live for months, and not the slightest sign of inflammation will declare itself, but on the contrary, an injury upon that side will heal a great deal quicker

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than one on the other side, and there is no suppuration. The vaso-motor centre is the one which is the easiest affected of all the centres of the nervous system. All kinds of zymotic poisons and a great many other poisons will affect it. Alcohol or belladonna will powerfully influence this centre, and will produce vaso-paralysis, but will never produce pneumonia. Even with the most intense poisoning with belladonna, we do not obtain that, at least not the true croupous pneumonia which the doctor describes.

As soon as the blood of an individual is surcharged with a toxic substance, the vaso-motor centres are first affected in all zymotic diseases. An illustration of this is seen in the chill of malarial fever, and of the commencement of croupous pneumonia. With the chill due to spasmodic action of the vaso-motor centre, there may be an affection of the convulsive centre which is in the immediate neighborhood, and in consequence, a chronic convulsion. One of the first symptoms in croupous pneumonia is derangement of the stomach. Therefore, the vomiting of these walnuts was simply due to the first beginning of the pneumonia. Children habitually overeat, and if they do overeat and get pneumonia, the first symptom is vomiting. Post mortem examination and clinical experiments both have proven to the satisfaction of the majority of the profession that croupous pneumonia is to be classed with zymotic diseases. While violent affections of the vaso-motor centre might induce a catarrh of the lungs, he seriously doubted the production of true croupous pneumonia. He is fully convinced that the true cause of pneumonia is a parasite, the pneumococcus which manufactures a poison, which in all probability is an alkaloid, and which has the power of so impressing the vaso-motor centre with the common phenomena of infection fever, etc.

Dr. Funkhouser remarked that it is the tendency now to say of every disease that affects the system in a pronounced manner, as for instance, croupous pneumonia or cholera, that it is caused by a failure of the sympathetic system. Now, the question is, how does it affect it? Do the specific bacilli act in such a manner upon the tissue as to form ptomaines which constitute the principal depressing cause at the present time to which pathologists are directing their attention, and do these ptomaines produce morbid conditions? Does the introduction of indigestible materials into the stomach produce congestion and a condition favorable to the production of these bacilli? We all know that bacilli are pres-

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ent, to some extent in every individual. The question is what is the difference between those that are pathogenous and those that are non-pathogenous. Some writers hold that there is no difference whatever; that under favorable conditions the non-pathogenous may be changed to pathogenous.

Dr. Bremer thought that nobody now would maintain that cholera is an affection of the sympathetic nerves. The sympathetic nerves are affected in cholera in the same way as are all nerves.

As to the assertion that there is no specificity in these organisms he had done a little practical work, sufficient to convince himself of the correctness of the investigations of such men as Pasteur and Koch. In such cases evidence is not to be weighed by every Tom, Dick and Harry, who say that there is nothing in it, that the tubercle bacillus looks like the bacillus of common putrefaction, etc. We must listen to the investigators who have made a study of this matter, who have made test after test with pure cultures, and so are able to establish the truth.

That there is some discrepancy amongst them is quite natural, but there is no authority, to-day, who does not admit that there is a specific bacillus of anthrax, which invariably and under all conditions produces that particular disease. And there is no prominent investigator in pathology in the world who would dare contradict the thousands of experiments made on rabbits, guinea-pigs and other animals, showing the deadly specific effect of the tubercle bacillus. To the inexperienced, one bacillus may look like another, but even students, to-day, can tell a tubercle bacillus at any time from a common putrefaction bacillus: at least they can demonstrate by the microscope, that there is a difference between them. That bacteria occur normally in the alimentary tract has been known for a long time. Pure cultures soon show that the general aspect of these bacilli is totally different from that of the specific true cholera bacilli.

Dr. Funkhouser said the only thing he wished to point out was a difference between the specific bacilli and those bacilli that every one has in his body in a state of health, but what that difference was no one has been able to discover or point out.

Dr. Shaw said his object in presenting this paper was to bring out a discussion rather than to make any radical move tending to change the present ideas in regard to pathology, or in regard to

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the etiology of pneumonia. Certain facts there recorded are facts, and facts are stubborn things, and we have got to meet them with more than simple arguments; we have got to analyze the facts and to relegate them to their proper position before we can determine exactly their worth.

While the experiments of Claude Bernard, in making section of the sympathetic nerve, support the view that the sympathetic may be severed and no inflammatory action result therefrom, there is equally good authority for the claim that in other cases inflammatory action resulted from section of the sympathetic nerves, and not only that, but in certain conditions of the system we have also trophic changes.

Even Claude Bernard acknowledges that while an animal in which a nerve has been cut may live for a long time and not present any inflammatory changes in parts supplied by the cut nerve, yet, if there is any influence causing depression of the general vital forces of the animal, and it receives an injury or a scratch of any character, inflammatory action is sure to follow, and that this action is extremely rapid. Virchow takes exactly the same position. Dr. S. thinks there is great difference between the effect produced upon the lung by a morbific agent in the blood, and that produced by an injury to the pneumogastric nerve, which may be due to an irritation of the vaso-motor centre by a peripheral irritation of some nerves supplying the stomach. While we might expect a greater influence to be produced by a section of the pneumogastric nerve, yet we cannot demonstrate that such is the case, and a more pronounced effect may be produced upon the vasomotor system, by simple irritation of the sensitive extremities of the nerves supplying the walls of the stomach, than would be produced by a mechanical injury of the nerve. In regard to the presence of a parasite, while he did not contradict statistics, that would be tom-foolery, yet he held that inasmuch as we live in a malarial country, it is almost impossible for any one to escape receiving more or less malarial bacteria, and if these bactaria had a noxious influence upon all alike, it would be impossible for any of us to live here. There must be in all persons affected by these bacteria a condition of the system which is unable to resist their attack. The perfect healthy system resists and casts off these micro-organisms. This may be true, also, in regard to pneumonia. There must be a pre-

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vious preparation of the system to receive the influence of the poison, and when this condition occurs and the poison is present, the system responds to its influence.

Dr. Leete said he had no disposition whatever to rate below their true value, any of the investigations that are being carried on by very patient and very capable workers, for the purpose of determining the specific causes of disease. Much has been said and very well said, in support of the proposition that the specific cause of tubercle is the tubercle bacillus, and that of cholera, the cholera bacillus; and yet, with all due respect to the workers in these interesting fields, he believed that the conclusions have not yet been satisfactorily reached that the tubercule bacillus and the cholera bacillus of Koch are respectively the specific causes of tuberculosis and cholera. He did not speak of these experiments from personal observation, as he had not made any experiments in this direction. But, notwithstanding all that had been said, he thought it must be admitted that there is a very wide difference between propagating an animal and propagating the fluid in which it lives. Those who have been experimenting with the bacillus of tubercle, have made experiments with the microscopic object and the material in which it is found; and the same is true of the experiments with the cholera bacillus. Very different results would probably be reached, if they would isolate these microscopic objects and wash them until they were absolutely clean and free from the fluid by which they are surrounded, and in which they flourish. And it might turn out that the bacillus, after it was thus thoroughly *cleaned*, would be a harmless thing compared with the bacillus as it has been *cultivated*. It must be admitted, after all is allowed that we can in justice allow, in respect of the experiments that hinge upon fine work in chemistry and fine work with the microscope, that the means with which we work and the methods we pursue are and of necessity must be crude. The little world in which Pasteur and Koch, not to mention a host equally as respectable, equally as fully devoted to interpreting truthfully what they observe—they must admit and we must admit that this world in which they have been working is a very little known world; or if you choose to liken it to a language, it is a new language with whose alphabet we have not yet become thoroughly acquainted. He did not suppose that the human body in any or all of its parts, is impervious to the atmosphere, or that it is necessary for the microscopic organisms to penetrate the body

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by the mouth, or by the lungs. He did not believe it possible for experimenters, using all the care that can be exercised in the manipulations necessary in conducting these cultivations, to be sure that they are dealing with one certain thing that will cause a certain disease when injected or inoculated into an animal, whether brute or human; it is not possible to know, that, when inoculating with or propagating the tubercle bacillus, they are using the bacillus of tubercle and no other hurtful thing.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, March 6th, 1886. Dr. E. H. Gregory in the chair.

Dr. Spencer Graves read a paper entitled "An Epitome of the Etiology and Treatment of Puerperal Eclampsia."—Vid. May COURIER.

The chief issue in the discussion of the subject, was with regard to venesection. Dr. Graves' experience was limited, but he did not favor venesection.

Dr. Hurt related three cases. In one, there were ante-partum convulsions. He bled the patient until she became somewhat white. She at once fell asleep. Labor soon followed, and recovery ensued. In another case, morphia, chloral, and chloroform having effected but temporary relief, a copious venesection was followed by a cessation of the convulsions. The same happy effect followed a third case. Perhaps, the morphia and venesection combined, had effected the cure.

In mild cases he would rely on anesthetics and anodynes. In severe cases where he believed renal or cerebral congestion was present, the use of ergot was indicated. And where there had been no extreme loss of blood in parturition, he would certainly bleed and follow this with a hypodermic of morphine. He believed morphia less harmful, after than before venesection.

Dr. Newland believed that when the convulsions were uremic, they were often fatal. But often they did not depend upon uremia, but a rigid os, a deformed pelvis, or other cause of prolonged labor. He had been far more successful with morphia than with chloral. Where he thought cerebral hyperemia existed, he depended upon

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chloroform, seldom upon venesection. He thought that the disposition of the patient had much to do with puerperal eclampsia. But one who was ordinarily inclined to motor spasm, was more apt than others, to have convulsions in labor. Sometimes the convulsions were hysterical.

Dr. Graves did not believe in a convulsive disposition. On the contrary, the majority of epileptics had no fits during pregnancy nor during labor.

Dr. Bremer did not believe that a deformed pelvis or rigid os, had any etiological significance; but that a disease common to pregnancy, acute albuminuria, was the common cause. Albuminuria in the urine was always found in puerperal eclampsia. With albuminuria exists hydremia. There also exists increased arterial tension. These two conditions favor cerebral edema. It is, however, much questioned whether such conditions would produce the convulsions; more probable uremic coma. Many nephritics die without convulsions, in whom, on post mortem, was found cerebral edema. It was, therefore, more probable that it was the excrementitious matter in the blood, especially urea, which caused the convulsions, the rationale being as follows: The poisonous substance in the blood excites the vaso-motor centre in the medulla, and, as a consequence, a general contraction of the vessels in the brain follows, producing cerebral anemia, and anemia means convulsions. Venesection in chronic Bright's disease was inadmissible; every drop lost was a nail in the victim's coffin, but the case was different in acute Bright's disease. He had seen surprisingly good results from venesection, in puerperal eclampsia. He could not say why all pregnant women with albuminuria did not have puerperal convulsions at labor. Not only the hysterical, the neurotic suffered, but, also, the women who, previous to pregnancy, were models of good health.

Dr. William Johnston had only seen the trouble occur in robust, plethoric women. He thought that over-feeding, lack of exercise, and consequent accumulation of effete matter in the blood, with congestion of the motor-centres, were the causes. In such cases he would bleed. If cerebral anemia existed, he would think venesection, or deep narcosis, contraindicated. Small or stimulating doses of morphia and chloroform would seem more rational.

Dr. Love had seen one case. He thought the disease very rare. Chloral and chloroform relieved the patient. He did not believe

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we were careful enough, in stimulating the excretory organs to their full effect, during the pregnant state. This, and the administration of narcotics during the early stage of labor, he thought prophylactic of convulsions.

Dr. Moore thought, also, that the tedious worry of the first stage of labor had much to do with convulsions, and that in chloral we had a great agent as a prophylactic, by producing ease during the first stage, thus preventing reflex activity.

Dr. Papin, in thirty-eight years' experience, had only seen half a dozen cases, and they had all recovered, "in spite of heroic treatment." He had no special views to offer, except that very copious venesection only proved what wonderful resistance to the combined attack of eclampsia and doctor, the organisms of some women possessed.

Dr. Green thought venesection and the narcotics had about the same effect, namely, perfect rest of the muscular apparatus, thus securing a greater peripheral distribution of the blood. He believed that if venesection was resorted to, it should be done quickly, so as to produce a sudden and profound impression.

Dr. Scott had never practised venesection in the treatment of this disease. Chloral had always answered every purpose. Many cases of so-called puerperal eclampsia were hysterical, and any simple antispasmodic would answer. He had had patients with anasarca of feet, face and eyelids, indicative of albuminuria, and expected that such patients would have convulsions, but such had not proven the case. On the other hand, had been surprised, where everything had been progressing favorably, the head about to pass the vulva, to note the occurrence of eclampsia. Did not know of any method by which we could know whether or not a given patient would have eclampsia.

Dr. Gregory said, "I find that I am an old fogy. Venesection in eclampsia does not seem to be popular. If I had been asked how to treat the trouble, I should have immediately answered, "With the lancet." Dr. Pallen, a man of extraordinary ability, after an experience of thirty years, once made the following remark: "I treat these cases with the lancet, almost invariably, and if I were deprived of the lancet, I should feel impotent in the treatment of puerperal convulsions." Dr. Gregory was surprised at the great revulsion of feeling concerning bleeding. He related several instances of pulmonary diseases occurring in his practice, which

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not yielding to other treatment, at the hands of capable practitioners, had been at once relieved and cured by copious venesection. Amongst others he mentioned a case of double pneumonia, which, had been "given up." He believed blood-letting very seldom killed, and that it was grossly neglected. He believed that if one did not bleed a plethoric woman with typical puerperal convulsions, he failed to do his duty. He wished to be put on record as an advocate of blood-letting.

Dr. Pollak, who had had a large experience at one time, had seen many cases, and had always resorted to the lancet with most satisfactory results.

Dr. Hulbert amongst five hundred cases of labor occurring in the female hospital, has seen but one case of eclampsia. She was plethoric, and venesection was employed successfully.

Stated Meeting, March 13. 1886. Dr. E. H. Gregory, in the chair.

RUPTURE OF INTESTINE.

Dr. Lutz presented the history of, and post mortem specimen from, a man who had been kicked in the abdomen by a mule, causa rupture of the ileum. The speedy occurrence of extensive tympanitis after the injury, with other signs, had formed the basis of the doctor's diagnosis. Laparotomy was declined, and the patient died after suffering excruciating agony, forty-eight hours after receiving the injury. Post mortem found that five or six inches above the ileo-cecal junction, the ileum was ruptured in three places. The two highest up were separated about an inch; one being an inch in length, the other half an inch, as seen in the specimen. Two were longitudinal, the other severed the bowel transversely". No other injury. Peritonitis. *There was no injury to the abdominal wall.* A similar fact, reported by Dr. Lutz in another case in 1873, had been extensively quoted by European journals as a rare event. Dr. Lutz called attention to the fact, that many authors advise in such cases, no surgical treatment, relying chiefly on opium, amongst whom is Agnew. Dr. Lutz remarked that it was the custom, when there co-existed an injury to the abdominal wall and visceral lesion, to enlarge the outer wound, and search for and treat the visceral wound. Why not pursue the same course when the abdominal walls were intact, by means of a laparotomy, when diagnosis of intestinal rupture was certain? Even if the diagnosis were

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doubtful, laparotomy properly done added little to the danger Such cases as the one presented, when allowed to take their own course, invariably ended fatally. It would seem, therefore, not only justifiable, but also imperative, that surgical treatment should be directly applied to the ruptured bowel as the only chance for recovery.

Dr. Borck thought that an operation might have saved the patient.

ANEURISM OF AORTA.

Dr. Bauer read the history, and presented the specimen of an aneurism of the aorta involving the ascending portion and innominate. The chief interest of the case lay in the fact that the sac by its pressure had effected complete destruction of the cartilages of the first and second ribs, and of the corresponding sternal cartilage, and thus presented directly beneath the integument of the thoracic wall. There existed one rupture, one to the left of the sternum as large as a silver dime, through which most of the blood escaped. The sac had pressed on the pulmonary artery and left auricle. Both ventricles were enlarged, especially the right; the aortic valves were incompetent. Syphilis was possibly the etiological factor.

Stated Meeting April 3, 1886. Dr. E. H. Gregory, in the chair

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NECROSIS OF JAW.

Dr. Lutz exhibited a specimen of phosphorous necrosis of the lower jaw of the left side. It occurred in a girl aged twenty years, a match factory employee. A periostitis had followed the extraction of a tooth on the left side, and eventually a general ostitis of the same side, the process occupying a year and a half. Dr. Lutz experienced no difficulty in removing the diseased jaw. A number of pumice like deposits were well seen in the specimen. Dr. Lutz exhibited a like specimen, removed several years ago, from a man, the angle of the jaw, with the last molar in it, being involved. The necrosis in this case had also commenced after the extraction of a tooth. Complete restoration of bone at the angle followed, and though the man has continued in the same occupation, that of the manufacture of phosphorus solution in which the points of the match sticks are dipped, phosphorus poisoning has not recurred.

Dr. Gregory had seen a great many cases of jaw necrosis, and though connected with a large clinic near the match factories, was

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not able to connect the necrosis with phosphorus in more than two or three cases.

ABORTION.

Dr. Fry exhibited some bits of rusty wire removed from the vagina of a patient who had aborted at the third month. The patient had been under the care of an ignorant abortionist. Dr. Fry supposed that this man had endeavored to introduce the wire into the uterus, but the wire having become entangled in the cervix, was cut off and left there, after he had in vain endeavored to extricate it.

CHRONIC INTUSSUSCEPTION.

The President, Dr. Gregory, reported an extraordinary case of intussusception of six weeks standing, in a child one year old, cured by taxis, the child being inverted during the manipulation. The symptoms which had existed six weeks before Dr. Gregory saw the child, consisted of cramps and pains in the lower abdomen, with the passage of blood. Constipation and straining, varied at times with a perfectly satisfactory movement of the bowels. A hard sausage-like mass existed from the groin to the splenic flexure of the colon; a tumor was felt on rectal digital examination, without a cul-de-sac, and was very rigid, like the colon projecting into the rectum. The child was held suspended by the heels, whilst the finger in the rectum and hand over the abdomen, made pressure and succussion. Success finally followed this maneuvre and the cure has been permanent. Dr. Gregory remarked that acute intussusception was not uncommon in infants, but that a case of chronic intussusception, like that reported, he thought almost unique.

Stated Meeting, April 10, 1886. Dr. E. H. Gregory in the chair.

MORPHINE POISONING.

Dr. Hulbert reported a case of morphia narcosis in a patient convalescent from puerperal metritis. In the course of seven hours, two grains of morphia were administered to counteract great pain from an enteritis, with but moderate success in relieving the pain. The dose each time was one third of a grain. Three doses were given hypodermically, and three by rectal suppository; afterwards an enema was given to produce a passage. Three hours after this rather sudden and profound morphia narcosis ensued from which

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the patient after much exertion was rescued. Dr. Hulbert's explanation was, that the suppositories were only partially absorbed in the rectum, and that the stream from the enema had carried them up into the colon; hence the feeble effect of the morphia at first, and its powerful effect afterwards. Dr. Hulbert had thus explained a similar case of belladonna poisoning. He was, therefore, disposed to warn against the use of enemas shortly after the exhibition of rectal suppositories containing narcotics.

REFLEX OTALGIA.

Dr. Williams reported a case of tobacco amaurosis in a man, aged thirty-two years; also a case of white atrophy of the optic nerves, much benefited by strychnia. Another case came to him complaining of great pain in the ear, an examination of which disclosed nothing abnormal. An inspection of the mouth disclosed a fungous ulcer of the tongue, caused by the ragged edge of an opposing molar tooth. Touching the ulcer caused pain in the ear. The cure of the ulcer was followed by cessation of pain in the ear. Dr. Williams had seen many cases of reflex pain in the ear from diseased teeth, but this was the only case he had seen where it was caused by an ulcer of the tongue.

TOBACCO-HABIT.

Dr. Moore reported a case where profound depression of spirits, verging on actual melancholia, had resulted from sudden cessation of the tobacco habit in a man who had used it to excess for twenty years. He was averse to using cocaine as a remedy in this case.

Dr. Hughes said that the withdrawal of tobacco in the insane, did not aggravate their symptoms. It was probable, however, that being occupied with delusions, they more readily forgot the tobacco. Those who were situated so that they could not get tobacco, such as prisoners, men sick in hospital wards, etc., suffered much less nervous depression than those who voluntarily deprived themselves of it, and had about them constant temptation to resume the habit. Dr. Hughes had never known of a case in prison, asylum or elsewhere, where cessation of the tobacco habit had produced any but mild mental disturbance. He would therefore believe that in such a case as Dr. Moore's there was an underlying condition which the sudden non-use of tobacco had merely awakened. The individual who would have serious mental disturbance from the withdrawal of tobacco would suffer the same degree of disturbance from any other slight cause. Such an individual is ab-

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normally constituted. We must not take the final cause as the sole cause, without looking for the real and antecedent influence.

Dr. Moore. believed that the sudden cessation of the tobacco habit in his patient was the sole cause of his melancholic symptoms.

Dr. Ford mentioned a case of melancholia dependent on intense endometritis, with extreme anteversion, in an unmarried young lady; also one in a young man, conquered by curing a chronic prostatitis. Dr. Ford mentioned several more cases in his practice where melancholia with delusions had been cured by relieving prostatic or urethral diseases. Dr. Ford would therefore earnestly urge an investigation of the genital tract in all cases of melancholia. As to treatment, *Dr. Hughes* would first compel sleep, night after night, by means, if necessary, of chloral hydrate and cephalic galvanization until the brain had prolonged rest. Nature would soon re-establish the habit of sleep. Strychnia and tonic doses of quinine were very useful adjuvants. He would even give quinine liberally, since sometimes marked malaria existed in these cases.

MICHIGAN STATE MEDICAL SOCIETY.

The twenty-first annual meeting of the Michigan State Medical Society was held at Jackson, June 9th and 10th. The meeting was an interesting one and largely attended by most of the prominent medical men of the state. The president, Dr. E. P. Christian, of Wyandotte, called the meeting to order, and prayer was offered by Prof. Stark of the Congregational church. The address of welcome was made by Mayor Bennett. Dr. Main, of Jackson, presented the report of the executive committee, and invited the members of the society to attend a reception to be held at Assembly Hall Thursday evening.

Dr. Frothingham read a report on ophthalmology.

Dr. Connor read a paper on "Foreign Bodies in and Injuries to the Eye ball."

Dr. Wight, of Detroit, read a paper on "A Proposed Plan of Public Sanitation", and a special committee was appointed to bring the matter properly before the next legislature.

Prof. Maclean gave some recent experiences in surgery.

A number of papers on medical and surgical diseases of women,

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were read, and about two hours in the afternoon were devoted to the discussion of this subject.

The evening session opened at eight o'clock, and the president delivered his annual address

Dr. Brown, of Detroit, read a paper entitled "Irritation of the Alimentary Canal.

Several motions relative to miscellaneous business, were passed.

Dr. Ward, of Langsburg, read a humorous paper entitled "Medical Milk."

The charges against a member for unprofessional conduct, were brought forward and were referred to the judicial committee.

The committee on admission reported favorably on a number of applications for admission to membership.

The following papers were presented.

"Some SpecialPoints for Operative Surgery", by Dr. De Camp, of Grand Rapids; "Administration of Chloroform", by Dr Sullivan; "Convenient Manner of Handling Patients with Spinal Diseases", by Dr. Herdman; "Disinfectants and Sanitation", by Dr. Clark, and "Small Pox Inspection Service", by Dr. Long, U. S. A.

On motion it was resolved to appropriate five hundred dollars to the International Medical Congress to be held at Washington next year. The next annual meeting is to be held at Lansing, and its meetings hereafter are to be held on Thursday and Friday instead of Wednesday and Thursday. Dr. Shepard was elected President, and the nominating committee reported as follows: Vice-Presidents, Dr. Stoddard, Dr. Walker, Dr. Newkirk, Dr. Heminway; Secretary, Dr. Duffield; Treasurer, Dr. Hagadorn. The usual number of delegates at National Association were appointed, and the meeting adjourned.

FOOD FOR MILCH COWS.—The contracts of the leading condensed milk companies with the dairymen who supply milk for condensation specify that "the cows shall not be fed on feed which will impart a disagreeable flavor to the milk, nor upon any feed which will not produce milk of standard richness—namely, turnips, barley-sprouts, brewery or distilled grains, linseed meal, glucose refuse, starch refuse or any damaged feed or ensilage."—*Sanitarian*, June, '86.

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RUSH MONUMENT COMMITTEE.

To the Members of the Profession of Medicine in the United States:

At the meeting of the American Medical Association at Washington in 1884, it was remarked that while that beautiful city was adorned with statues of patriots who have aided to establish the American nation and in themselves have made the name American honorable among men, there was no representative of the profession of Medicine among those who had been thus commemorated.

Congress is placing in the Memorial Hall of the Capitol the statues of the founders and men of mark of the Republic, each State contributing two of its most eminent *citizens*, and the collection already includes the Winthrops, Samuel Adams, Hamilton, Livingston, Clinton, Roger Williams, Nathaniel Greene, Collamer, Fulton, Roger Sherman, Trumbull, Baker, William King, Muhlenberg, and Ethan Allen.

Of the *Presidents*, Washington, Jefferson, Jackson, Lincoln and Garfield have already, and Grant and Taylor are soon to have, their effigies in stone or bronze. The *Military* and *Naval* heroes of the country have been honored in the persons of Scott, Thomas, McPherson, Rawlins, Greene, Farragut, and DuPont, and to these McClellan, Hancock, Shields, McDonough, and Barry are about to be added. A resolution is pending to erect a statue to Stanton as *Secretary of War*. The *Law* has its representative in Chief-Justice Marshall, and *Science* is recognized in Professor Henry. The *Church* is so have its statue to Wesley; the *Deaf Mutes* have taken action toward a memorial of their eminent teacher, Gallaudet; and *Philanthropy* is to have a monument to Peabody.

Other monumental adornments of the national capital are the Emancipation Statue in Lincoln Park; the Naval Peace Monument at the foot of the Capitol; the statues of the world's great artists, among them the American Crawford, surrounding the Corcoran Art Gallery, and the statue of Martin Luther overlooking Thomas Circle. Congress is further providing for heroic statues of Columbus, Penn, Lafayette, and Anthony Wayne; and the Italians are contributing for one to Garibaldi.

Painters and sculptors, presidents and law-makers, generals and admirals, the scientist and the discoverer, the philanthropist and the teacher, the jurist and the divine, thus all appropriately commemorated, the profession of *Medicine* ought not to delay longer in erect-

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ing its enduring testimonial of one who was not only a great physician, teacher and investigator in medicine, a philosopher, philanthropist, eloquent lecturer, and accomplished writer, but also a fearless patriot and founder of the Republic, a member of the Continental Congress and signer of the Declaration of Independence, the first Surgeon-General of the Army of the Revolution for the Middle Department and Physician-General of Military Hospitals, and a member of the Convention for the adoption of that Federal Constitution under which we now happily live, BENJAMIN RUSH, OF PENNSYLVANIA, whose active, honorable life was crowned by his heroic death on the 19th of April, 1813, in the sixty-eighth year of his age, when, while trying to save other lives, he fell like a soldier on the battle-field, a victim of the prevailing epidemic of typhus.

Seventy years ago it was written of him:—"Considered in relation to the entire composition of his character, as a practitioner, a teacher, a philosopher and a writer, Dr. Rush must be acknowledged to have been the most distinguished physician that America has produced;" and a later author has said: "The loss of no individual of this country, excepting Washington and Franklin, has been lamented with more universal and pathetic demonstrations of sorrow. As a physician, he has left upon the age in which he lived the impress of his character and genius; in the minds of his countrymen he holds an undisputed preëminence; and amongst foreign nations it is acknowledged that the fame of Sydenham has been rivalled by that of Rush."

The Committee to whom has been entrusted the execution of this great work are happy to state that it has met with unqualified approbation from every part of the country, and they accordingly announce that they are now ready to receive subscriptions and donations.

The existing statues in Washington have ranged in price from $15,000 to $50,000—that of Professor Henry having cost $15,000, and that of Chief-Justice Marshall $40,000, both civic statues by Story. It may be approximately estimated that $40,000 will be sufficient to erect a monument that will be fitting and unexceptionable as a work of art, and it does not admit of question that this sum can be speedily raised among the 106,000 physicians and students of medicine in the United States. That no one may be debarred the privalege of contributing, a subscription rate of one dollar from each individual has been determined, and you are accordingly so-

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licited to remit that amount to the member of the Committee representing the State, Territory, or National Service to which you belong, who will also receive voluntary donations of such other sums as may be tendered by persons interested in this national undertaking.

For the Committee,
ALBERT L. GIHON, M. D., *Chairman.*
GEORGE H. ROHÉ, M. D., *Secretary.*
JOSEPH M. TONER, M. D., *Treasurer.*

[We take pleasure in commending to the favorable notice of our readers the above address from the special committee of the American Medical Association oe the Rush Monument. The Profession of the West and South will not wish to be left behind in the endeavor to suitably honor the memory of a truly great man. We subjoin a list of members representing the different States:

MEMBERS OF RUSH MONUMENT COMMITTEE.

R. F. Michel, M. D., Montgomery, Ala.; R. G. Jennings, M. D., Little Rock, Ark.; C. G. Tyrrell, M. D., Sacramento, Cal.; Charles Denison, M. D., Denver, Col.; G. W. Russell, M. D., Hartford, Conn.; W. E. Fraser, M. D., Bismarck, Dak.; L. P. Bush, M. D., Wilmington, Del.; J. M. Toner, M. D., Washington, D. C.; T. O. Somers, M. D., Jacksonville, Fla.; J. A. Gray, M. D., Atlanta, Ga.; S. J. Jones, M. D., Chicago, Ill.; J. H. Davisson, M. D., Warsaw, Ind.; M. K. Taylor, M. D., Fort Sill, I. T.; J. F. Kennedy, M. D., Des Moines, Ia.; F, D. Morse, M. D., Lawrence, Kas.; Steele Bailey, M. D., Stanford, Ky.; P. B. McCutcheon, M. D., New Orleans, La.; S. C. Gordon, M. D., Portland, Me.; G. H. Rohé, M. D., Baltimore, Md.; E. H. Brigham, M. D., Boston, Mass.; G. E. Ranney, M. D., Lansing, Mich.; J. H. Murphy, M. D., St. Paul, Minn.; W. F. Hyer M. D., Holly Springs, Miss.; Geo. Homan, M. D., St. Louis, Mo.; A. S. von Mansfelde, M.D., Ashland, Neb.; G. P. Conn, M. D., Concord, N. H.; William Elmer, M. D., Trenton, N. J.; W. R. Tipton, M. D., Las Vegas, N. M.; A. N. Bell, M. D., New York, N. Y.; W. C. Murphy, M. D., South Washington, N. C.; G. A. Collamore, M. D., Toledo, O.; E. P. Fraser, M. D., Portland, Or.; J. H. Musser, M. D., Philadelphia, Pa.; H. R. Storer, M. D., Newport, R. I.; R. A. Kinloch, M. D., Charleston, S. C., C. C. Fite, M. D., Knoxville, Tenn.; F. E. Daniel, M. D., Austin, Tex.; E. F. Upham, M. D., West Randolph, Vt.; G. B. McCorkle, M. D., Covington, Va.; T.

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T. Minor, M. D., Seattle, W. T.; S. L. Jepson, M. D., Wheeling, W. Va.; J. T. Reeve, M. D., Appleton, Wis.; Charles Smart, M. D., U. S. A., Washington, D. C.; J. C. Spear, M. D., U. S. N., Brooklyn, N. Y.; P. H. Bailhache, M. D., U. S. M. H. S., Philadelphia, Pa.

THE MEDICO-CHIRURGICAL COLLEGE of Philadelphia has just purchased a new lot 154 feet square on Cherry street, near Logan Square. The buildings now on the lot will be remodelled and enlarged, making due provision for lecture rooms, amphitheatre, dissecting rooms and laboratories. Within the bounds of this new property will be located the following institutions which are now united with the college: 1. The Medico-Chirurgical College; 2. The Medico-Chirurgical Hospital; 3. The Philadelphia Dental College; 4. The Hospital of Oral Surgery; 5. The Philadelphia Hospital for Skin Diseases.

Prof. Wm. H. Pancoast, who has taught anatomy at Jefferson Med. College for 27 years, has accepted the chair of anatomy in the Medico-Chirurgical College, taking with him the fine anatomical museum collected by his father and himself.

Dr. Jno. V. Shoemaker is now professor of Dermatology, and Dr. E. E. Montgomery, Professor of Gynecology in the Medico-Chirurgical.

W. C. T. U. PRIZE.—The West End St. Louis W. C. T. U. offers a prize of fifty dollars to the St. Louis medical student who presents the best essay on the hereditary effect of alcohol.

PROGRESS.—This is the name of a new medical journal, the first number of which we have received from Louisville, Ky. It is handsomely printed, and under the able editorial direction of Dr. Dudley S. Reynolds. We are sure the success of *Progress* will be rapid and great.

THE ALABAMA MEDICAL AND SURGICAL JOURNAL, edited by Drs. J. D. S. and W. E. B. Davis, of Birmingham, Ala., is another new candidate for favor among the physicians of the South, and especially the State of Alabama, in which there was previously no medical journal published. We shall welcome the *Journal* among our exchanges.

THE BOYLSTON PRIZE of two hundred dollars for the best essay on the "Relation of Hospitals in Medical Education" was awarded to Dr. Chas. F. Withington, of Boston.

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ORIGINAL ARTICLES.

POST-PARTUM HEMORRHAGE.

BY WALTER COLES, M. D., *Professor of Obstetrics and Operative Midwifery in the Beaumont Hospital Medical College of St. Louis.*

[*Read before Obstetrical and Gynecological Society*, May 20th.]

IN February last I was called to see Mrs. C. in her fourth confinement. The summons came two weeks before the calculated period, yet I was not surprised at this as she had appeared for several months to be enormously large. I found the vertex presenting and the labor considerably advanced, so that in the course of an hour a male child weighing about six pounds was born. While tying the cord there was complaint of a severe bearing down pain, and a second child was partially extruded foot-foremost in the unruptured amnion. I hastily disposed of the first child and delivered the second. The husband left the house for the purpose of hurrying up the nurse, who had not yet arrived. One of the servants had quit the night before, and I was left in the house with no one to call on for assistance except a green girl of sixteen. The uterus contracted well at first, and I

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had no difficulty in delivering the large, detached placenta. It being a bitter cold morning, my attention was directed for a few moments to making the children comfortable, and when I again glanced at my patient I was struck with her ghastly pallor. At the same moment she complained of blindness and dizziness, and exclaimed that she was dying. I placed my hand upon the uterus and found it much enlarged and relaxed, and on passing my right hand into the cavity I discovered a large clot plugging up the os, and the body was filled with fluid blood, which gushed out up to the elbow.

I found myself in a trying position, being alone in the room with no other person in the house capable of rendering assistance except the young girl to whom I have alluded. No time was lost, however, in emptying the uterus of clots and lowering the head of my patient, who was on the verge of syncope. Flagellation of the abdomen with a towel dipped in cold water and stimulation of the internal surface of the uterine cavity with the hand introduced, soon checked the hemorrhage, but only temporarily, as the organ contracted imperfectly. I directed the girl to run into the yard and bring me several balls of snow, one of which was immediately passed up into the uterus. At this juncture the husband returned and I immediately dispatched him for assistance. He soon returned with Dr. E. M. Nelson, who rendered most efficient aid. Although active bleeding had now ceased, our patient was reduced to a state of alarming prostration, while the uterus obstinately refused for a considerable time to assume a condition of tonic contraction; but would alternately contract and relax, and thus add to the already alarming loss of blood.

During all this time, however, the patient, who is a lady of remarkable coolness and good sense, never once lost her self-control, and while realizing her danger, fully appreciated the importance of all that was being done, and in this way contributed her full share towards the saving of her own life. Fluid extract of ergot and brandy were administered hypodermically, and blood clots repeatedly turned out of the uterus, but it was several hours before the tendency to relaxation was overcome and uniform contraction permanently established.

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The lack of symmetrical contraction was a marked feature in this case, it being repeatedly observed by Dr. Nelson and myself that this condition would alternate, first one side and then the other of the uterus being firmly contracted, while the opposite segment was flaccid. I have never before seen a case in which this alternation of unilateral activity and inactivity was so plainly marked.

The cause of hemorrhage in this case was probably two-fold; first, overdistension of the womb due to twin pregnancy, and secondly, to an abnormal condition of the muscular wall of the uterus near the fundus, which was apparently due to the development of an interstitial fibroid, whereby the organ was considerably hypertrophied.

The patient, after passing through a series of critical symptoms, such as threatenings of syncope, headache, dizziness, oppression of breathing, restlessness, and at one time an agonizing burning or boring pain in the knee-joints, finally made a good recovery.

I have recited this case not on account of its novelty, but as being rather typical of a most serious danger which may at any time confront the obstetrician, and with which all general practitioners may be expected to come in contact sooner or later, and in regard to which it is essential that all who attend purturient women should have definite ideas as to etiology and treatment. This subject has also been suggested by certain remarks which I heard in reference to the management of the placenta in natural labor, during the recent session of the American Medical Association. At a meeting of the section on obstetrics it was asserted by one gentleman, and the remark apparently was concurred in by the others, to the effect that "no time need be lost in the delivery of the placenta" and that "all delays in the delivery of this mass are unnecessary, if not hazardous."

It is my purpose to confine my remarks chiefly to the relations of the placenta to post-partum hemorrhage.

When this accident occurs, the general advice of obstetrical authorities is embraced in two injunctions: secure uterine contraction, and, if the placenta is still retained, see that it is promptly delivered. Now since it is a universally admitted fact

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that a tonically contracted uterus cannot bleed, it must be conceded that the former of these aphorisms is a *sine qua non.* But the second in regard to the removal of the placenta, admits of qualifications which we would do well to study.

First let us inquire in what way the presence of the placenta within the uterus contributes to the hemorrhage or to its continuance. It is claimed that a retained placenta may induce hemorrhage for two reasons, (1) because it offers a mechanical obstacle to perfect uterine contraction; (2) because if partially adherent, it directly promotes the bleeding. When there is no detachment of the placenta there can, of course, be no hemorrhage. It will be readily seen, therefore, that two physical elements must necessarily enter into all cases of post-partum hemorrhage. There must be imperfect uterine contraction and partial or complete placental seperation. As a rule, it will be found that the profuseness of the hemorrhage will be in direct ratio to the uterine inertia, and inversely proportional to the area of adherence of the placenta. That is to say, the flow of blood will be in direct proportion to the laxity of uterine fibre, as to the extent and number of ruptured vessels in the utero-placental site. If this be true, it is evident that in ordinary labor the presence of the placenta in utero can only promote hemorrhage in so far as it offers a mechanical obstacle to uterine contraction, while it serves really to lessen it to the extent of its adherent surface. Although we are aware that this latter proposition is in direct conflict with high authority, we think it tenable on physiological and clinical grounds, and hence we are justified in concluding that the only possible good which can accrue from a speedy delivery of the after-birth in post-partum hemorrhage is the mere mechanical one of clearing the cavity of the womb of foreign material in the same manner and for the same reason that we would sweep out so much clotted blood, simply to get rid of it, and in order to prepare the way for local styptics within the uterine cavity.

I desire to call up a discussion of this question, because I am satisfied that both sides of it deserve close and rational consideration, and for the reason also that most of our text-books offer very loose and empirical advice on the subject, which is well cal-

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culated to mislead students and practitioners, who are taught to regard the presence of the placenta in the uterus as a thing necessarily hurtful, as contributing to the loss of blood, and to be gotten away at all hazards and as speedily as possible. Entirely too much stress being laid upon the retention of the afterbirth and too little upon the fundamental fact that the placenta has, in nine cases out of ten, nothing whatever to do with the bleeding, which is rather due to absence of uterine contraction, to inertia. In proof of this assertion, it is only necessary to recall the fact that in ordinary labor the retention of the placenta, whether partially or wholly detached, does not produce hemorrhage. Common experience teaches us this, and so long as we are convinced that the uterus is firmly contracted upon the placental mass, we are accustomed to feel satisfied and await with composure and confidence the advent of secondary pains, and when finally, after the rest of ten or twenty minutes, the placenta is thrown off, its expulsion is accompanied by no abnormal or detrimental flow of blood. Yet it must be evident to any mind that if the placenta were the offending cause in these cases, every mother would bleed nearly to death before this body is gotten rid of in the usual course of nature.

We repeat that most of our obstetrical works are not sufficiently discriminating and explicit on this point; they do not explain with clearness the mechanism of the hemorrhage and the part which the retained placenta plays in promoting it, but leave the student to infer that its retention is really the foundation of all the trouble.

The practice in these cases partakes too much of a blind, routine procedure. For instance, Leishman, in his chapter on "Hemorrhage after Delivery," reminds the student in the first paragraph that "Retention of the placenta and *consequent hemorrhage* may be the result of mismanagement." Undoubtedly this is true in some instances, but upon reading a general statement like this upon the very threshold of the subject, the inexperienced practitioner, who naturally looks to his books for advice, will reason thus: If the hemorrhage is a "*consequence*" of retention of the afterbirth, and such retention the result of a palpable "*mismanagement*" then evidently the proper course is to

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empty the uterus as the first step towards eradicating the mischief. He may overlook the fact that *inertia* may be the cause of both the retention and the bleeding, and will probably proceed in the absence of uterine contraction to forcibly peel off the placenta and deliver it, a measure, which in the latter case, while possibly accomplishing no good, would open up new flood-gates of mischief. Still, in every event, whether there be inertia or not, the student has the same dogmatical advice to guide him, for, says this author on the next page, "in all these cases the treatment is the same, and consists in the speedy removal of the placental mass." p. (391).

Dr. Playfair, whose work is one of the best recently published, lays the usual stereotyped stress upon the importance of emptying the uterus. He says: "When the placenta is retained, it is the more essential, as the hemorrhage cannot possible be checked as long as the uterus is distended by it." Now, we pause to ask if this proposition of Dr. Playfair is true. Is it a fact that the mere bulk of an ordinary placenta (not abnormally adherent) can so distend the uterus as to provoke serious hemorrhage? A moment's reflection will convince any one to the contrary. Indeed, the author has elsewhere in his work, clearly answered this question in the negative.

We have already called attention to the clinical fact that when the uterus contracts properly there is, in common labor, no hemorrhage during the interval between the birth of the child and the natural extrusion of the placenta, a period covering from ten minutes to half an hour, and hence the conclusion is irresistible that so long as the womb performs its part faithfully, the mere presence of the placenta is incapable of harm. So true is this that Playfair in his chapter on the "Management of Natural Labor," takes particular care to warn his readers against "*undue haste*" in removing the after-birth, a practice which he very properly believes "tends to increase the risk of post-partum hemorrhage." (p. 270). He moreover adopts the rule laid down by McClintock, that fifteen or twenty minutes should elapse before making any attempt to deliver the afterbirth. Of course this rule assumes that the uterus is contracting down upon the placenta as it should do after labor, for when this is the case

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there can be no bleeding to speak of, since the bulk of the placenta is insufficient of itself to distend the uterus beyond the *danger line.*

But before discussing this question further it would be well to revert briefly to the mechanism of *post-partum* hemorrhage. What are the causes of hemorrhage, and whence comes the blood? I answer that in flooding from the utero-placental site the causes are various, but the source of the blood is always the same. It is important to remember that dangerous and even fatal hemorrhage may occur post partum, which is quite independent of the placenta, as in intra-uterine fibroids, laceration of the cervix, vagina, etc., but such being excluded from present consideration, leaves us to deal with but three classes of cases. The first of these, and by far the most common, is uterine *inertia;* the second is abnormally adherent placenta, in which case the placenta, through structural changes in the decidua serotina, becomes so firmly attached to the uterine wall as to interfere with proper contraction of that organ. Here, as in the case of fibroid, we may have a normal disposition on the part of the uterus to contract, but with an inability to do so, in consequence of the firm placental engraftment, the result being irregular and imperfect contraction. It is to this class of cases that what is known as hour-glass contraction usually belongs. There is also a third class of cases, due either to disease of the uterine fibres, to old adhesions from previous inflammation, or to deranged innervation, in which there may likewise be defective contraction.

The source of the blood in all three of these classes of cases is not from the separated surface of the placenta, but from the torn ends of uterine vessels, the arteries and veins, both of which, but chiefly the former, contribute to swell the torrent. The well-known views of Hamilton and Simpson upon the mechanism of hemorrhage in partially detached placenta have created an impression upon the professional mind in keeping with the great weight of their authority, and I am satisfied that the writings, more particularly of the latter, have contributed largely to erroneous views of practice. It was contended by Dr. Simpson that in uterine flooding the hemorrhage was exclusively venous, and

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that the blood escaped, not from the denuded uterine wall, but from the venous radicles of the detached portion of placenta.

Of course, if the view of Simpson be accepted, which is, unfortunately, vaguely done by many, there could, possibly, be no better alternative than to put in practice his operation, and at once separate the entire placenta, and thus cut off the flow. But there can be no question that Dr. Simpson carried his theory too far, and that the theory itself was based upon a misinterpretation of facts. Such is now the almost unanimous conclusion of all modern obstetrical authorities who have given the subject special attention.

Some years since, when I expressed views similar to those contained in this paper before the St. Louis Medical Society, several members denounced the doctrine as rank heresy and wholly without scientific support or warrant. I claim, however, that there is nothing revolutionary in the position which I have assumed. On the contrary, it is my object simply to call attention to certain practical considerations based upon strictly physiological and clinical data, and which, I think, are calculated to promote more rational views of practice; for the fact is that no physician or surgeon can successfully cope with any grave emergency unless he has clearly fixed in his own mind, at least, substantial reasons for whatever he may feel called upon to do. Empiricism often succeeds, but in the majority of cases, and always sooner or later it leads to disaster.

My position in this matter may be embodied in the three following propositions:

First. The placenta can only participate in producing post-partum hemorrhage when it is of abnormal size, or morbidly adherent, thus offering a physical bar to uterine contraction.

Second. Simple retention of the placenta when detached, or partially adherent by *normal* attachments, does not of itself contribute to the production of hemorrhage.

Third. The forcible removal of the placenta from a non-contracting uterus is not, *per se*, a remedy for hemorrhage.

The first thing for a practitioner to do in a case of post-partum hemorrhage is to examine the uterus externally and ascertain its condition as regards shape, size and rigidity. These investiga-

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tions can all be readily answered by an experienced hand, placed upon the abdomen of the patient. If the uterus appear firm, but oblong and somewhat irregular in shape, he is justified in concluding that there is something within it that offers a mechanical obstacle to perfect contraction, and he knows from the feel that this obstruction must be either in the nature of a tumor, or an abormally adherent placenta. Having first satisfied himself that the uterus is able and willing to perform its part, he gently passes a hand within its cavity, in order to ascertain the nature of the hindrance, and if he finds the placenta partially adherent, he endeavors to detach and remove it. This is sometimes a difficult matter, and may fail of perfect accomplishment, even in the hands of the most skilful. But the completeness of contraction and the stoppage of bleeding will, in this case, be in proportion to the amount of placental detachment, for when this has been pretty thoroughly accomplished, the uterine fibres are left free to contract, and the uterus will generally close down upon the placenta and hand and extrude both into the vagina. Again, the attendant may find on external manipulation that the uterine body is much larger and not so firm as it should be; it is also rounded and more uniform in its outline than in the case previously described. Here we have a mixed case, where there is partial inertia, together with distention from constantly increasing blood-clots. The distention in this case directly contributes to the bleeding, and should be relieved by passing in the hand and turning out the coagula. This should, however, be *preceded* and accompanied by the usual remedies for inertia. In such a case the *danger line* of distention has been reached in consequence of the flaccidity of the uterus and the accumulation of blood clots, rather than by mere retention of the placenta, which need not be a source of worry, until the uterine atony is overcome, in which event the uterus will take care of itself, whether the afterbirth is within it or not. In a large majority of cases the flooding is due solely to uterine *inertia*; here the fault lies exclusively with the uterus, or with the nerves supplying that organ, while the placenta is merely a passive element in the case. The inertia, therefore, is the thing to be gotten rid of, and not the placenta, as is often taught and practised. In

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order to accomplish this, ergot, kneading the uterus outside and inside, flagellation of the abdomen with cloths dipped in ice-cold water, ice, hot water injections and many other means may be employed, but forcible detachment and removal of the after-birth is not one of these, nor should it be resorted to until after the uterus shows a decided disposition to contract: otherwise the danger may be greatly aggravated rather than diminished.

I have already said that if the placenta is detached or not preternaturally adherent it can, of itself, offer no obstacle to a perfectly safe degree of contraction. If any evidence were needed upon this point, beyond our daily experience in natural labor, the testimony of Ruysch, Wm. Hunter, and many others of their school, who adopted the practice of leaving the placenta *in utero* for hours and days, until nature herself threw it off without hemorrhage, would seem to definitely settle this point. Again, if the placenta be of normal adhesion, the less the area of surface detached the better, so long as atony continues, because the bleeding surface is thus maintained at a minimum.

This point is well put by Madame Lachapelle, who, in alluding to prophylactic measures against post-partum hemorrhage, says: "You still have one resource left, and that is, to leave the placenta in the womb until fresh pains are excited. For in most instances this body is not entirely detached, and it resists the flooding so long as the stupor of the womb caused by its too sudden evacuation persists." The late Professor Bedford has, also, in his usual vigorous style, presented this matter in its true light. In his lecture on the management of "external hemorrhage," he says: "Flooding may occur whether the placenta is completely or partially detached and yet within the uterine cavity, or it may occur after this mass has passed from the organ. It is a very singular fact that many practitioners imagine the *sine qua non* of success in the management of hemorrhage, to be the removal of the placenta, and hence in these cases, the very first thing attempted is to extract this body, under the impression that with its delivery the flooding will cease. There never was a more perfect delusion. Why, gentlemen, the after-birth, in strict truth, has nothing to do

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with the hemorrhage; it is not a bleeding surface, and whether it be within or outside the uterus is a matter of utter indifference, so far as the great object is concerned — *the inducing of uterine contraction.* The practice is founded upon vague and indefinite notions with regard, in the first place, to the true cause, and secondly, to the source of the hemorrhage."

It only requires a little reflection, I think, to convince us that the position of Dr. Bedford is unimpeachable, and that the successful treatment of post-partum hemorrhage must depend upon rational remedies, addressed *to the cause.* In the hands of a skilful and vigilant, physician it can scarcely ever occur that anything like a rapidly fatal hemorrhage could depend upon any other cause than *inertia uteri.* Of course we recognize other causes of dangerous bleeding, but they are exceptional, and for the most part require special treatment.

In conclusion, I will repeat that there seems to exist a great deal of misjudgment and false reasoning in connection with the practical relations of the placenta to post-partum hemorrhage; *because* the hemorrhage frequently ceases on the forcible removal of the after-birth, such delivery is credited with producing the result, but as I have already said, the *post hoc ergo propter hoc* argument in this case does not bear critical analysis; for when this happens the stoppage of the hemorrhage is simply an incident due to the stimulation of the uterine walls during the act of detachment and delivery. Whenever such manipulation fails to excite permanent contraction, however, the flooding is aggravated in proportion to the additional number of uterine vessels thus laid open.

Labor being a natural process, it behooves the obstetrician, in all that he does, to study and respect the physiological laws which control parturition in all its stages. Experience teaches us that when the supreme effort of the uterus has resulted in the birth of the child, this organ pauses to take breath, as it were, before exerting its powers further in the expulsion of the placenta. This interval of repose varies in accordance with the degree of fatigue, and when sufficient nerve force has been stored up, it is discharged in the shape of a renewed effort to complete the final act. As a rule this period of repose imme-

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diately succeeding the birth of the child should not be rudely disturbed by premature efforts directed to the removal of the after-birth. It is better to wait awhile, keeping a hand upon the abdomen in the mean time, to be sure that there is no uterine relaxation, and thus be prepared, when secondary pains manifest themselves, to assist nature in throwing off the placental mass.

The fact is, that the more we study the pathological physiology of such cases, the more apparent does it become that the real causes of *inertia uteri* lie hidden far back in the deeper recesses of the nervous system. They are undoubtedly numerous, varied and sometimes obscure, and these must be intelligently sought after and reached before we can expect to find in every case the true physiological remedy, either in the way of prophalaxis or treatment.

THE ETIOLOGY AND TREATMENT OF CHOREA.—A SHORT REVIEW OF SOME OF THE CURRENT LITERATURE.

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[*Read before the Mississippi Valley Medical Society*, July 1, 1886.]

DURING the last two or three years the subject of chorea has received much attention, with a tendency to remodel opinion and theory in the light of more recent scientific researches. Clinical, pathological, statistical facts, many of much value, have been contributed in abundance to swell its already full and interesting literature. In scanning this over, one finds a variety of theories, ingeniously and attractively defended by their adherents, amongst whom, however, there are always some with individual shades of opinion that so complicate the original theories as often to make them quite perplexing and difficult to formulate. I shall hastily notice the most prominent of these, hoping to get before our minds the shapes thought and argument are taking regarding its etiology.

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The most attractive theory is that one which declares that rheumatism holds a frequent, if not constant, causal relation to chorea. It has many adherents, especially in England, France and America. They may be arranged in three classes: first, those who believe that rheumatism, from the fact that it is very often followed by anemia and a debilitated condition of the system, becomes thus a frequent predisposing cause of chorea; secondly, those who believe that there is a more intimate, but as yet undiscovered relation between the two affections. The following quotation from a recent clinical lecture by Prof. Da Costa (reported in the *Phila. Med. Times*, vol. xvi., p. 312), is a fair statement of their position: "The association of chorea with rheumatism is too close a one for us to regard it (here) as a mere coincidence. You can generally trace in a case of chorea a strong rheumatic element, either inherited or acquired." Also one from Dr. James Ross, Eng. (His new work on Diseases of the Nervous System.) "That some causal relationship exists between articular rheumatism and chorea has been known since the beginning of the century, but the true nature of this relationship has not been accurately ascertained." The third class of those who adhere to the causal relation of rheumatism to chorea, embraces those adopting the embolism theory. The original position of this class is thus stated in a quotation from Dr. James Frederick Goodhart, Eng. (His work on Diseases of Children.) "The constancy of these little growths upon the edges of the valves of the heart (observed in fatal cases) has led to a very direct, simple and fascinating pathology for chorea, in the suggestion that it is due to embolism. The vegetations are, it is supposed, washed off the valves, carried into the smaller arteries, and thus produce local anemia, malnutrition and degeneration of the cerebral cortex and ganglia, which leads to loss of control over the muscles."

Against the rheumatism theory are urged, amongst others, the following facts: Many cases of chorea occur in which no evidence of acquired or inherited rheumatism can be detected. The choreic movements almost always precede the affections of the joints and heart, seeming to be the cause and not a consequent of the rheumatism. In localities where there is much rheuma-

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tism we would expect to find more chorea, but such is not the case; we simply find the two diseases more frequently associated. In Geneva, for example, according to Rilliet's statement, there is a great deal of rheumatism and hardly any St. Vitus' dance. Chorea is a disease of childhood, few cases occurring after the fifteenth year. Alfred Vogel makes the unreserved statement that when adults suffer from it, it will be found that they acquired it during youth, while, on the other hand rheumatism is without question, more frequently an affection of adult life. Statistics are uniform on the fact that chorea occurs very much more frequently in girls, rheumatism does not thus elect its subject from the members of the female sex, statistics, on the other hand, seeming to show that more males than females suffer from it. The association of rheumatism and chorea was remarked long ago, and has been ever since a theme for much discussion, so that most of these points have been familiar to us for years, but they have assumed a new interest on account of the embolism phase of the subject, which is just now receiving so much attention because of the recent, widely published experiments of Dr. Angel Money. Dr. Money, by introducing into the hearts and bloodvessels of certain animals minute particles of matter, such as starch globules and grains of carmine, produced thus artificially capillary embolisms in the brains and spinal cords of these animals. In some of the animals, when the embolisms were in the cord, there followed what were thought to be choreic movements, "involuntary movements, indistinguishable from those of chorea." Dr. W. Howship Dickinson, Eng., in discussing the experiments (*Lond. Lancet*, Jan. 2, '86), says: "The embolism theory of chorea, fathered by Kirks and espoused by Hughlings-Jackson, has thus received a sort of confirmation—a confirmation by synthesis—one to which it is impossible not to attach significance. The introduction of a new fact makes it necessary for those who, like myself, have been opposed to the embolism theory, to consider their conclusions." The scope of this paper does not permit me to rehearse the discussion of the Money experiments. I shall simply name what to me seems to be the most important and at the same time most interesting question that the discussion has brought out, namely

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as to whether the movements in animals resulting from embolism as above described, are analogous or similar physiologically considered, to those of chorea in the human subject. This question involves some of the difficult anatomical and physiological problems that must be more nearly solved, before we may hope to solve the *other* problem of chorea.

Of the various arguments urged against the embolism theory, I shall mention only two. First, the clinical history of general embolism is now pretty well understood, and chorea does not appear to be a frequent symptom of this condition. Goodhart says: "It can hardly be doubted that acute endocarditis, from whatever cause arising, leads not unfrequently to capillary embolism, though, it would appear, not to chorea." Secondly, it is by no means clear that the cardiac affection so frequently observed in chorea is identical with that complicating rheumatism. In a paper published in the *Baltimore Med. and Surg. Jour.*, Apr. 24, '86 by Spencer M. Free, A. M., M. D., Baltimore, I see the following concise statement: "The heart murmurs (of chorea) cannot be due to serious inflammatory processes, else they would not end in perfect recovery, as is usually the case." Also a quotation from Dickinson (see above). "It is a familiar observation that though the chorea of mental origin continually becomes associated with cardiac murmur, yet that the chorea precedes any alteration in the rhythm and sounds of the heart, as if the cardiac affection were the result, not the cause of the choreic disorder."

So much for the rheumatism, and its appendage, the embolism theory. Let us glance a moment at some others. In the reports of post mortem examinations of fatal cases, there are to be found a great variety of lesions recorded as probable causes of chorea. Also, in the various accounts of its clinical history, we find it constantly associated with many other diseases. These facts have led certain observers to speak of chorea as only a symptom. They do not consider that it is entitled to nosological entity, as a disease *sui generis*, but that it is a phenomenon that may appear in the wake of various pathological conditions of the nervous system.

Opposed to these are others who consider it to be a disease *per se*.

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They are led to this opinion from the fact that there are, in the great majority of cases, a certain constant assemblage and sequence of symptoms. They cite the facts that there is almost constantly the presence of psychical symptoms;that the choreic movements frequently have their origin, apparently in mental emotions, especially fright, and that they are exaggerated by mental excitement; that it shows a decided preference for families in which there are insanity, hysteria, epilepsy and other evidences of a neuropathic predisposition; that only the voluntary muscles are affected, and that there is a cessation of the movements during sleep. These facts, together with the absence of more satisfactory pathological data, make them willing to place it temporarily at least, amongst the neuroses, accounting for its incipiency in some undefined, probably functional disturbance of the nerve-centres, the anemia, heart and joint affections, etc., being complications of the original trouble.

I will notice one other, and, as far as I know, the newest theory proposed to explain the phenomena of chorea. It is embodied in a paper read by Dr. C. R. Stratton, Eng., before the annual meeting of the British Medical Association last year. The subject of his paper is the "Prechoreic Stage of Chorea." The substance of it, briefly stated, is as follows: All cases of chorea, according to his experience, may be arranged in two groups To the first group belong those cases occurring in childhood, where the first symptoms noted are a general lowered vitality, sores within and on the margins of the nostrils and lips, often accompanied with fissures, sores in the pharynx, malaise, left apex-systolic murmur, blunted intellect, poor memory, vague pains and swelling of the joints; then follow the choreic movements. These cases are very frequently attributed to fright; they are also thought to spread by "imitation;" in the few cases that prove fatal, we find, in the nerve-centres, the cord and brain, a pretty general hyperemia, and minute capillary infarctions, and exudations on the edges of the mitral valve.

The cases of the second group do not run this apparently specific course; it includes cases of chorea due to direct injury of the brain substance, as from wounds, cerebral hemor-

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rhage, etc., and such cases as occur in epilepsy, and in organic disease of the brain and cord. These cases do not occur at any special period of life, their duration is perfectly uncertain. He says: "It is the prechoreic stage of the first group that I would notice. And I would ask what has taken place before 'the insanity of the muscles' comes on, and is chorea not merely an occasional sequence of some more frequent, specific disease?" He even suggests that it may be a communicable disease, and that it no more need be followed by chorea than diphtheria by paralysis. He is led to the suggestion by the fact that the sores on the nose and mouth yield a micro-organism that stains in a peculiar manner, and which he hints may be peculiar to the supposed disease. He also hints the possibility of the heart lesion being a characteristic one, and that the so-called vegetations are in some way associated with the micro-organisms discovered in the sores on the nose and mouth. He says that the vegetations undergo a coagulative necrosis, developing colonies of micrococci; these he believes are carried away in the blood current, forming embolic infarctions in the nerve centres, and in the parts about the joints. When the lesions in the nerve centres have not been of sufficient severity to immediately set up chorea, certain exciting causes, as dental, gastric, intestinal and other kinds of irritation, fright or any strong mental emotions may determine the accession of the movements. He concludes by reminding his hearers how often they are called on to treat children suffering from various nondescript ailments, that are alluded to as "general debility," "anemia with high temperature," "simple endocarditis," or "scarlatina without rash," and he suggests the possibility that many of these cases may, on more careful study, be found really to be examples of this supposable malady, in which the choreic movements do not make their appearance. It will be seen that this is a sort of new interpretation of the embolism theory, ingenious and fascinating, but not yet proved.

Such, with other variations, is the variety of opinion in regard to the etiology of chorea. This state of affairs tells its own story: we have not yet solved the problem. We are certainly nearer a solution of some

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kind, for some of the discoveries of the last few years, not only in the pathology of chorea itself, but in anatomy and physiology and the pathology of apparently kindred diseases, have a certain usefulness in helping us out. It is true we do not know the exact significance of some of these facts, but from the nature of them we are persuaded of their abiding value; for example, we do not know the significance of the artificial production of chorea, or something similar to chorea, in animals, yet that these phenomena have appeared is a fact of permanent value. Our data, and I may safely say our knowledge, are abundant, but still chaotic. As practical physicians, however, we are willing to forego for the time the comfortableness of mind that would result from the harmonious adjustment of all these facts, if amongst them we may find a few points that shall assist us to discover other facts, and to detect the disease sooner and oftener, and to treat it more intelligently and successfully. Along this line there are opportunities and necessity for us to work, with many probabilities of success. To this end we should seek diligently in every case for an exciting cause, and in so doing we should have prominently in our minds the intimate association that exists between the periphery and the central nervous system. This idea is forcibly and beautifully expressed by Michael Foster in the following words (from his physiology): "All day long and every day multitudinous afferent impulses, from eye and ear, and skin and muscle, and other tissues and organs, are streaming into our nervous system, and, did each afferent impulse produce its correlative motor impulse, our life would be a prolonged convulsion. As it is, by checks and counter-checks of cerebral and spinal activities, all these impulses are drilled and marshaled and kept in hand, in orderly array, till a movement is called for." We know many of the causes that destroy or disturb these "cerebral and spinal activities:" we can imagine others, and with diligence we will be able to find others. It is needless for me to recite what have been assigned as the exciting causes of chorea. We are familiar with many, yet I doubt not that every physician in my hearing, of any considerable experience, has seen a case or cases where he has discovered a cause unknown to him before, on the removal of which the chorea disappeared. On the other

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hand, I am very certain that we often have had poor success in treatment because we could not or did not discover the exciting cause, which, if we had known, we could have removed in some of the cases that we have failed to relieve. Not infrequently I have heard the question, "What is the best or newest treatment for chorea?" It seems almost a ridiculous one. To such an inquiry our reply should be, make a searching examination of your patient's eyes, nose, mouth, ears, all of the organs of the cranial, thoracic, abdominal and pelvic cavities, and of other organs, including the skin, and whenever you find something to treat, treat it, and treat it well. In the light of more recent investigations it would appear especially worth our while to particularly observe the heart symptoms, the time of their appearing and disappearing, the articular troubles, not simply calling them rheumatism and passing them by; the condition of the skin, any eruptions that may occur; to look out for paresis and remark the manner of its coming and going; to examine the buccal, nasal, and pharyngeal mucous membrane, and to note how frequently sores may appear on the margins of the lips and nose, and to examine them. Thus we may not only make our cases more interesting to us, but by carefully recording our observations we may help contribute the kind of information that assists in no small degree to increase our general knowledge, while at the same time we are better performing our duty to our patients. *The American Jour. of Med. Sciences*, April,'86, contains a valuable paper by Dr. A. Jacobi, of New York, in which he speaks of the frequency of chorea affecting the muscles of the face, sometimes extending to the extremities or even becoming general from pathological conditions of the naso-pharyngeal regions, such as congestion of the mucous membrane, swelled muciparous glands, large tonsils, etc. He says: Unless their cause be recognized I have seen these lasting through quarters and halves, or even whole years, getting somewhat better occasionally, particularly in warm weather, but liable to return at any moment. The majority of patients of this class are children" I have seen such a case at the St. Louis Medical College Dispensary within the last three weeks, and referred it to another department, where along with constitutional treatment, the ca-

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tarrhal trouble will be carefully attended to. Two years ago I saw a well developed, healthy appearing young woman, 19 years old, who had been afflicted with a slight but continuous and annoying right hemi-chorea for many years. After treating her on general principles for a month or more, I found that she occasionally had some pain at her menstrual time. On examination I found what I considered to be undue sensitiveness about the ovaries. I gave her a prescription of bromide of potassium and ergot, and applied galvanism, with the negative pole on the abdomen over the ovaries and the positive along the spine. The chorea very soon disappeared for the first time in nine years. At a recent clinical lecture (see above) Prof. Da Costa presented a patient in whom a most violent chorea had almost completely disappeared in a remarkably short space of time with the administration of hyoscyamine (in dose of $\frac{1}{200}$ to $\frac{1}{100}$ gr.). He thus gives his reasons for using it. "I recalled a case of tremor which I had seen rapidly influenced by hyoscyamine. * * * * It is claimed that hyoscyamine is a valuable anti-spasmodic, and exercises a remarkable control over the muscular movements. Also with the control of the movements the condition of the muscle is improved." All of us could cite instances where a rational selection of remedies has given fortunate results, but from what I have seen and heard, I do not believe we are accustomed to use this constant care. When a patient is presented having choreic movements, we are too prone to simply call it chorea, and commence giving arsenic. In this method of treatment, fortunately for our patients, but not for ourselves, I imagine we often get better results than we deserve; for in arsenic we have stumbled across a medicine that fills many of the requirements in treating the general run of cases. Bartholow says of it: "That it promotes the appetite and digestive functions and improves nutrition. * * * * It stimulates the cerebral functions, and induces a feeling of well-being, and in some subjects a decided mental exhilaration. * * * It is one of the most valuable remedies we possess in the treatment of chlorosis and anemia." It is the best single remedy that we possess for this affection, yet on this account the most liable to abuse. We may easily be disappointed, if we do not use it with due care. In

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each case we should carefully watch the tolerance of the patient, else we will not be able to increase the dose in the proper manner to get the desired effect. If we are not very careful to have the bowels constantly regulated, we will soon have to contend with a gastric congestion, sometimes of a troublesome nature. We should not allow constipation to exist for a single day when we are giving large doses of arsenic. In most cases its effect is better when given with iron, and I believe the tolerance is also thus increased. And yet, even when we have observed all the prescribed precautions, we shall find in a considerable proportion of cases that either for want of tolerance on the part of the patient, or from an absence of beneficial effects, we cannot rely on it, but must seek other remedies. Dr. W. B. Cheadle, Eng., has recently written a paper on the treatment of chorea with arsenic, recommending it very highly (*London Practitioner*, Feb., '86). In concluding, however, he very appositely says: "I would not have it supposed that I regard the whole treatment of chorea to consist in pouring so many doses of liquor arsenicalis down the patient's throat. There are many other essential measures to be adopted in the successful management of chorea, many other drugs besides arsenic which beneficially influence it."

703 Washington Ave.

PEMPHIGUS OF THE CONJUNCTIVA.

BY WM. DICKINSON, M. D., ST. LOUIS.

PEMPHIGUS is the term employed to denote a vesicular affection of the epithelial tissue, and according to its seat it receives the designations, "pemphigus of the conjunctiva," "pemphigus of the skin." It is a rare affection in either situation and of uncertain duration. It supervenes without appreciable cause, presents similar phenomena and passes through the same stages. Recurrence is one of its most characteristic features. The term "pemphigus" signifies a bladder; the vesicles at once assume a large size, varying from that of a mustard-seed

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to that of a pea or even larger, and are called blebs, bullæ. No portion of the body or limbs is exempt from their invasion. These at first contain a transparent serous fluid, which soon changes to a milky color, then semi-purulent. These blebs in a short time burst, the contents escape, dry up and form crusts, which finally disappear, leaving the surface in much the same condition as before. This disease is most commonly met with in children in the first eighteen months of life, still it occurs in persons of all ages, especially in those of advanced years. Chronic pemphigus (sometimes called pompholyx) in adults occurs in the proportion of one case to ten thousand of the entire population. Neither physical condition, temperament, special diet, habits, season of the year or geographical peculiarities seem to act as specially predisposing causes. It seems to be found, however, more frequently in the anemic and debilitated. The condition of pregnancy, slight local injury, the female sex, and even heredity appear to present conditions favorable for its invasion.

These observations being descriptive of pemphigus as it affects the skin, are in general applicable to the disease affecting the conjunctiva. But the results are quite different in the latter; the original integrity of structure of the part invaded is never regained; cicatrization and contraction, inevitable and irresistible, take place; and the gravity of the injury sustained depends upon the situation of the blebs, being more grave when it is seated in the conjunctival sac; for, when the blebs occur in this location, the opposing palpebral and ocular conjunctivæ being denuded of epithelium, in the process of healing they adhere, and thus is lessened the depth of the conjunctival sac, or it is wholly obliterated, inducing symblepharon more or less complete, ectropion, trichiasis, and all the troublesome sequelæ consequent thereon. Pemphigus of the conjunctiva is much more rare than its congener cited. In all the records of ophthalmic surgery, probably not thirty cases can be found. Mr. White Cooper, of St. Mary's Hospital, London, published one case, the earliest date that has come to my knowledge. Schweigger states in his Handbook of Ophthalmology "only two cases are known in which pemphigus of the conjuctiva occurred in connection with the eruption on other parts of the body." Dr. J. C. Campbell, of

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this city, in 1878, published the case of a man 62 years of age, which had come under his observation, in which the sequelæ just enumerated were present, and from which the patient ultimately became blind.

The case of Mr. Cooper cited, occurred in a woman of 24 yrs., highly chlorotic, greatly debilitated and hysterical. She suffered from both forms of pemphigus, had several recurrences; but the cornea not being involved, vision was not destroyed. During the last period of temporary convalescence, she was lost sight of. Extensive cicatrices of the conjunctiva and symblepharon were exhibited in her case.

With these preliminary observations I will now proceed to detail the first case that has occurred to me, in a practice of thirty-three years, of pemphigus of the conjunctiva.

Mrs. P., 62 years of age, of petite figure, a widow, mother of several children, a teacher for forty years, general health good, having experienced much sorrow in the death of children and from other causes, presented herself June 25, 1885, with the following history and condition. She is presbyopic, and has worn glasses $\frac{12}{}$, and stronger, for five years. She says: "Two years since, while in the country, my eyes became severely inflamed, but they recovered in five or six weeks; exer since, however, my eyes have troubled me at times, often filling with tears, especially during the last year. In February, 1885, the disease became more aggravated, my eyes became very red, inflamed and watery. The left eye was first affected, was painful, and so continued for some time. The disease seemed to localize itself on the inner side of the left eye-ball, and presented a large water blister. After the water was discharged there remained a large red spot. Simultaneously with this blister there appeared similar blisters on both upper lids. To these I applied flax seed poultices, and after a few days they disappeared, but considerable pain continued. In April I consulted an oculist of this city, being then unable to bear strong light or to look up. I then had large blisters on the upper lids and also on the margins of the lids. These he opened, letting out the water, and gave me a white ointment to use. I remained under his treatment for two months, during which time I had several successions of blisters and recoveries, and the intense redness of the ball partially subsided. The doctor did not tell me what disease I had, but always assured

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me I should get well. At this time, also, the lower lids began to turn inwards and the lashes to touch and irritate the eye."

At the instance of a mutual friend she consulted me first, as stated, June 25. The upper lids then drooped, and she was suffering from photophobia, entropion and trichiasis, not only from the normal cilia, but from abnormal ones which to a great number had developed along the inner border of the lower lids. Both upper lids were thickened and indurated, rendering eversion difficult and painful. However, there was but little general conjunctivitis of the upper lids, but the vessels of the entire sub-conjunctival tissue of the eye ball were deeply engorged with blood, from which by pressure through the lid, it could be expressed, but it speedily returned.

A striking and very observable feature was a broad, fibrous band, striated, of whitish color, evidently cicatricial in character, resembling a pterygium, lacking the red color, occupying the inner aspect of the left globe, extending from the inner canthus nearly to the cornea. It presented the same appearance as is seen after the contact of some powerful escharotic. On inquiry she stated that nothing of the kind had ever happened to her. This was unquestionably the sequel of the large blister (bleb) from which she had for so long a time suffered some months before, and which was pathognomonic of pemphigus. The lower conjunctival sac was much diminished in depth and extent.

Immediately after this visit the patient went to the country, and her next visit was on August 18. The eyes and lids were in much the same condition as when last seen but more aggravated, especially the entropion and consequently the photophobia. The punctum of left lower lid being contracted, and as was probable, also the lachrymal duct, I passed a Bowman's probe with benefit. In the early weeks of treatment I pulled out the abnormal cilia, and also those of the normal series which were most offending. In consequence of the progressive contraction of the conjunctiva, both palpebral and ocular, the inversion of the lower lid continued to increase. To resist this tendency I removed from the integument of the lid an oval piece, which for a short time restored completely the lid, and at the same time the normal cilia, to their normal position. About November 1, for the first time since she came under my observation, blebs appeared on the integument of the upper lids,

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covering the entire surface. The general integument was nowhere affected, nor had blebs as yet attacked the globe.

I now destroyed the bulbs of the abnormal cilia by electrolysis, and also those of the normal that became incurved and irritated the globe. In this, with constitutional treatment, I persisted till December 1. At this time a small vesicle invaded the upper part of the conjunctiva of the right globe just above the corneo-scleral junction, which later assumed the conditions of an ulcer and being treated as such kindly healed. Soon after a large bleb developed in the lower fornix of the left eye. This in a few days passed through the various stages and ultimately healed, and left a cicatricial contracting surface. Directly afterwards a bleb occurred on the conjunctiva of the right eye, which had the same history. March 1, I observed a large bleb on the conjunctiva of the left globe occupying the upper and outer quadrant, extending to and invading the corneal edge. Simultaneously a bleb of similar dimensions, and in corresponding location, attacked the right eye. This was the last visit made by the patient; reasons of discontinuance unknown. Gratitude and satisfaction had always been expressed, notwithstanding I had frequently informed her that the disease was refractory and oftimes intractable. Vision, as the result of pemphigus, was intact, except as embarrassed by trichiasis and lachrymation.

Treatment. Generous diet and tonic regimen from the first was presistently pursued. Quinine and iron, singly and combined, were administered in full doses, and during the last three months arsenic was added. Local treatment by collyria of ac. boracici, and to the blebs local applications of mild solutions of arg. nit. and ox. hydrag. flav. (amorph). Galvanism was also employed through the closed lid, one rheophore being applied to the nucha or held in the hand, and during the last month I applied it directly to the conjunctiva, it having been first rendered insensible by instillations of cocaine. By this agent I hoped to re-inforce the vaso-motor factor of the great sympathetic, which had become paretic, and which gave rise to the chronic congestion, the extravasation of serum and the resulting formation of blebs. Eserine was also at periods instilled. Incipient cataract was present in both eyes.

As a summary, and in conclusion, I am not convinced that any agent employed proved itself curative, though temporary benefit was often manifest.

St. Louis, 1322 Olive St.

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ADDRESS TO GRADUATING CLASS OF ST. LOUIS TRAINING SCHOOL FOR NURSES.

BY MRS. CORNELIA B. PULSIFER, M. D.

IT is my duty to present to you the diplomas you have so faithfully earned; but before doing it, let me thank you for your patient faithful work during the two years you have been with us.

Only those who have followed you day after day since the training school began its existence, know how hard this pioneer work has been.

We thank you for the heroism which made you persevere.

Our affectionate interest will follow you, as it never can those who come after you.

We ask you to remember that the reputation of our school and of trained nursing in this city, depends largely upon you.

Physicians and patients will decide favorably or otherwise according as you do your work well or ill.

Your first duty is to the physician; to him you owe the most complete loyalty and prompt, intelligent, careful obedience.

No one who has not acquired the habit of conscientious obedience to orders, whether she approves them or not, has a right to be considered a "trained nurse." There are many excuses for ignorance but none for disobedience.

The efforts of the most skilful physician can be thwarted by a careless or unconscientious nurse.

Equally skilful physicians, having equally good results, differ often in the treatment of similar cases; do not, therefore, presume to sit in judgment upon methods which are new to you. Never discuss the treatment with the patient or wit hfriends.

Loyalty to the physician includes encouragement of the patient's faith in him.

There can be no rivalry or clashing between the work of a doctor and a nurse. Nursing well done, offers a sufficiently broad field for all your energies, and anything like prescribing for, or diagnosticating disease would be vulgar quackery, and would be a sad commentary upon your ignorance.

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You have but begun your knowledge of nursing, let it be the work of your lives to perfect yourselves. Every new case should teach you something, and be sure you hold yourselves in a receptive and teachable attitude.

Aim at the highest excellence in your work. Cultivate your mind and your manners, since everything which makes you more of a woman, will make you a more acceptable nurse.

Real merit will in the end gain recognition, but do not attempt by assertion to win it. Remember always, the more one knows, the more unassuming he is.

Do not expect gratitude or appreciation; learn to do your duty faithfully without them, and never let their absence keep you from a cheerful and conscientious discharge of your duty.

Let me especially caution you to be discreet. Never talk about your experiences in nursing, or your personal and private affairs, and above all, the private affairs of those in whose families you have nursed.

Gossip of this kind is unpardonable, and will surely be condemned by those even who are most curious to hear it.

Take such pride in your work as will keep you rigidly to the ideal standard of a trained nurse. Never consider anything menial which will add to the comfort of your patient, and under no provocation display impatience.

Be calm aud self contained, preserve your presence of mind in emergencies. Control even the expression of anxiety about you, that you may know what to do and what not to do.

Be absolutely truthful and honest If you have forgotten to carry out directions, or if you have made a mistake in carrying them out, be sure and report your omission or commission.

Mistakes can perhaps be forgiven and in future corrected, but a failure to report them is unpardonable.

Cultivate a low voice and unobtrusive manners, and be scrupulously careful as regards your personal appearance.

Do not ignore your own health. If you would do good nursing, you must have good health, and a reasonable amount of fresh air, rest and food are necessary for this.

If those whom you serve forget your needs in this respect, by tact you can explain to them that it is as much for their inter-

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est as for your own. It will much more often be your own fault than your employer's, if this is neglected. I am not now speaking of those times when self should be utterly forgotten, and the only thought be for the sufferer.

This advice you have often heard, but our interest in you, and our great desire that you satisfy both physician and patient leads us to repeat it.

Harvard University at the last annual commencement granted degrees in the medical department as follows: Doctor of Medicine, 59; Doctor of Medicine after a four years' course, 5; Doctor of Medicine and Master of Arts, 1; Doctor of Medicine with Praise, 1; Doctor of Dentistry, 10; and Doctor of Veterinary Medicine, 5.

Best Cows to Supply Milk for Infants.—Dr. E. F. Brush, in a paper on infant feeding, gives his experience as to choice of cows for supplying milk for infants. He says: "In the selection I exclude the Alderney, and her cousins, the Jersey and Guernsey. In the first place they are exceedingly nervous, and there is little doubt that they are more prone to tuberculosis than any other breed, owing to the close breeding. Next their milk contains the fat in a very poorly emulsified condition, which accounts for their good butter qualities. The fat exists almost entirely as free fat, and very little, if any, is combined with the albuminoids. The best cow to supply milk for infant feeding is the common grade cow. In my experience the big-red-breed is the most quiet and gentle in disposition, a good feeder, and not excitable even in heat. She should be stall-fed at all seasons when supplying milk for an infant. Her fodder should be fresh hay. The first thing in the morning, after milking, give her a breakfast of cut hay wetted and mixed with one pint of corn meal, two quarts of bran, one pint of oil meal, one ounce of bone meal, one ounce of salt. She should then be curried and turned out for exercise into a yard where there is an abundance of clean water. At noon she should have half a bushel of cut roots, either carrots, mangel-wurzel, or ruta-bagas. After milking in the evening give her the same allowance that was given at breakfast.—*Archiv. of Pediat.*, April, '86.

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CASES FROM PRACTICE.

MISSOURI MECIDAL COLLEGE DISPENSARY.—SURGICAL DEPARTMENT.

Service of T. F. PREWITT, M. D. Reported by A. V. L. BROKAW, M. D., Assistant to Chair of Surgery.

A CASE OF HALLUX VALGUS.

Katie F., æt. 22, first appeared at the clinic Sept. 26, '84. Complained of great pain and swelling of right foot. The patient walked with great difficulty, and examination of the foot revealed a very inflamed suppurating "bunion," the surrounding parts swollen, the swelling extending to the malleoli. The big toe was seen to override its fellows, extending well towards the median line, lying very obliquely to the long axis of the foot. The following history was given by the patient: A year previous, while viewing a procession in the crowded streets, was struck on the foot by the boot of a passing spectator, moving rapidly through the crowd. Little was thought of the incident at the time aside from the momentary pain. Patient walked home with a very slight limp. Within a few days the pain began gradually to increase, the swelling and inflammation became aggravated, a discharge of fetid pus took place, and had kept up ever since. The patient, notwithstanding, continued to wear during the day a moderately tight shoe, and at night used various domestic remedies, poultices, etc. A great difficulty had been experienced in finding a shoe which would fit, owing to the deformity.

The patient was anxious to have relief, and was willing to undergo any operation which would improve or bring about a cure. As a preliminary, absolute rest was enjoined, with foot elevated.

Oct. 3, '84.—Patient came to the clinic. The inflammation had lessened considerably. The patient was placed under an anesthetic, and a resection of the proximal phalanx of the right great toe was made; the two sesamoid bones also were removed.

Projecting upwards and inwards from the head of the first meta-

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tarsal bone was an osteophyte, pyramidal in form, in all probability due to a local periostitis excited by the continued abuse. This interfering with the operation, was primarily removed. The dressing in this case was a modified Lothrop apparatus, and proved quite satisfactory. (Apparatus: A padded cap for the great toe, with strip passing along the inner side of the foot to the heel, and secured by a few turns of a roller bandage, the antiseptic dressing being placed over all). The patient left St. John's Hospital, Nov. 6, with the line of incision completely closed. Within a few weeks after the operation the patient was walking as well as ever.

May 30, '86. The patient's foot was examined, and the result found to be perfect.

CASE II.—FRACTURE OF ZYGOMA.

Anthony McGrath, æt. 24, laborer, March 29, while carrying a bucket of mortar up a ladder, in endeavoring to step to the roof of a dwelling, fell head foremost thirty-five or forty feet, through the joists of the building, striking the side of his head, in his descent, upon a projecting joist on the second floor, and falling through to the ground floor. Remained half unconscious for some time, but received no special attention that day; came to the clinic the following day, complained of difficulty in opening his mouth, together with severe pain, which was more or less constant, and aggravated by motion of the inferior maxilla. The teeth could only be separated sufficiently to allow a lead pencil to be placed between them. Further examination showed some orbital ecchymosis and a bruising of the left side of the face and head. Considerable swelling had taken place, but a marked depression existed over the zygomatic arch. This depression was recognized as a fracture of the zygoma. The fracture must have been somewhat comminuted, for a crepitus was elicited. The crepitus was wanting in the characteristics of the false crepitus of effusion, and was appreciable to the patient as well as to others. The integument over the arch was intact but very much bruised. The orbital ecchymosis was quite pronounced and unaccompanied by cerebral or other symptoms. The treatment in this case consisted in absolute fixation of the lower jaw until the swelling had subsided, and in a few days movements of the jaw practised. Within two weeks the patient could open his mouth sufficient to permit the introduction of two fingers (one superimposed upon the other) between his teeth. The patient continued to do well, and was lost sight of shortly afterwards.

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EDITORIAL.

STATE BOARD OF HEALTH.

The Missouri State Board of Health, at its recent meeting, adopted a resolution similar to that adopted by the Illinois Board of Health, with regard to the relation between graduates and matriculates in medical colleges.

The resolution is as follows :

RESOLVED : That in future a percentage of graduates to matriculates of forty-five (45) or over, will be grounds for refusal of registration of diploma and issuing of certificate to graduates of a school otherwise in good standing; provided, however, that before such action is taken the said school, whose diploma is presented for registration, be notified and an opportunity given the faculty thereof for satisfactory explanation to the State Board of Health.

RESOLVED : That all recognized medical schools in this state be promptly notified by the secretary, of the foregoing resolution of this board.

While the measures that have been inaugurated by the Illinois State Board of Health for the elevation of the standand of medical education, and for the securing of thorough qualification of medical practitioners, have generally been admirable and effective. we do not feel by any means sure of the value of the action in which our own State Board has now followed.

Another matter which was considered at the same meeting is one of very considerable practical importance, and calls for immediate action on the part of medical societies and physicians.

Attention was called to the difficulty experienced in getting the prosecuting attorneys in the various counties to take the necessary

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measures for the enforcement of the law Regulating the Practice of Medicine in the case of unqualified and disreputable practitioners.

The Board of Health, therefore, very properly recommends that physicians and local medical societies, demand of gentlemen who present themselves as candidates for those offices this fall, satisfactory pledges that they will impartially and faithfully enforce this law, and thereby give to reputable physicians, the protection which the law intends and to which they are entitled.

Certainly the influence of the medical profession in the different communities in which such officers are to be elected this fall is sufficient to secure the election of men who will be faithful to their obligations in this particular.

It is time that the members of the profession should work together for the advancement of the best interests of the profession. See to it, brothers, in your respective localities, that your influence and support shall only be exercised in behalf of men who will, in their turn, do their duty by the medical profession.

DAIRIES IN ST. LOUIS.

The sanitary officer, at a meeting of the Board of Health held July 22, reported the results of a recent inspection of the dairies within the city limits.

There are now within the city three hundred and eighty-six dairies, in which are kept seven thousand nine hundred and nine cows. In forty-six of these dairies (not quite 12 per cent) there were filthy stables; and in nineteen (not quite 5 per cent) filthy lots were found; and one hundred and fifteen (30 per cent) had no exercise lot or pasture at all. One hundred and eight dairies (28 per cent) had no provision for drainage. In fifty (13 per cent) the ventilation of the stables was bad.

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In two hundred and twenty-six of these dairies swill is fed to the cows.

The result of this inspection will be preserved in the health office so that citizens can learn by application there the condition in which the officer found the premises of the dairyman from whom they procure their milk, as also the character of food supplied to the cows.

It would be well if physicians and other citizens would pay closer attention to matters of this sort. In many a case of illness, especially among young children, the source of the disease might readily be discovered in the unsanitary surroundings of the dairy from which the family supply of milk is obtained, or in the unwholesome, fermenting food of the cattle.

Such a record, so kept as to be accessible to the public and freely made use of by the public to learn the condition of the various dairies, would do very much to stimulate the dairymen to more diligent effort to secure cleanliness, ventilation and other sanitary essentials.

The Dairymen's Association has done very much during the last few years to secure better conditions in the keeping of cows and in the supplying of milk, and the officers of that Association have most heartily co-operated with the Board of Health in the efforts made from time to time to secure a better protection of the citizens as regards the quality of the milk.

In each case where, as mentioned above, stables or lots were found filthy or ill ventilated, an order has been issued for the correction of the abuse, and many of the orders have already been complied with.

Public opinion is a mighty power. Physicians have a grave responsibility with regard to the forming and moulding of public opinion upon sanitary and hygienic matters. We should talk more to our patients and friends concerning their sources of milk supply. It is doubtful if more than a very small percentage of the physicians practicising in the city have ever taken the pains to ascertain

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the character even of the dairy from which their own supply of milk is obtained. If the taste of the milk leads them to believe that their dairyman "stretches" his milk too much, they change to some other who may chance to deliver milk in the neighborhood, or who is recommended by some friend; but very few ever take the trouble to ascertain the exact location of the dairy, much less to drive to it and see for themselves whether it is kept in a cleanly condition, well drained and well ventilated, and whether the cows are fed with wholesome food and are kept in a wholesome condition.

By so doing physicians could, with little trouble to themselves, learn much that would be of service to themselves and their patients, and at the same time would most efficiently aid the Board of Health in their efforts to secure better protection to the health of the people, and especially the children who are specially susceptible to the dangers from impure milk supply.

THE ST. LOUIS TRAINING SCHOOL FOR NURSES.

Every physician knows how invaluable the aid of a good experienced nurse is in the sick room; he also is made painfully aware how difficult it is to procure such a nurse, one that will be at once familiar with tending the sick and sufficiently well trained not to interfere with his directions; one that shall be able to reinforce his daily prescription by her constant observation of the fluctuations of the case. St. Louis is very fortunate in procuring a training school for nurses, which is now in its second year of activity. The City Hospital affords an ample field for their practical training. Those in charge of the school are desirous of extending its privileges beyond the bounds of St. Louis, that the profession in general may be benefited. They therefore invite the profession to send pupils to the school, such women as manifest an aptitude and otherwise are worthy and capable.

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On another page we print the address of the President of the training school, delivered before the graduating class of 1886. This address clearly points out the objects of the school, and, at the same time, assures the profession against fears that it graduates amateur doctors in place of obedient nurses.

Cancer of the Mamma.—Prof. McCall Anderson in the discussion on cancer before the Glasgow Pathological and Clinical Society, referred to the fact that cancer is more than twice as frequent in the female as in the male, which he attributes partly to the frequency with which the mamma and uterus are involved. He remarks that there is some difference of opinion as to whether it occurs more or less frequently in married or unmarried women. His personal observations have convinced him that it is much more frequent in the unmarried, and he suggests the following explanation. "The function of the breast is to secrete milk, and when the married woman has suckled her children, the gland passes into a state of quiescence or atrophy. To use a Disraelian expression, it may be regarded in the light of an extinct volcano. In the case of the unmarried woman, on the other hand, the breast is, so to speak, defrauded of its normal function, and as years go on, it is apt to fall into evil courses. It almost seems as if one might apply to it the well-known lines—

'Satan finds some mischief still
For idle hands to do.'"

An interesting question with regard to which his observation has not prepared him to express an opinion would be whether the disease is more common in the case of married women who have not had, and who have not suckled children than in those who have.—*Glasgow Med. Jour.*, July, 1886.

Sewage Farming.—A successful experiment is being carried on in Croydon, England, where a farm of six hundred acres disposes of the sewage of 66,000 persons. During the twenty years in which it has been in operation, it has never been the occasion of any nuisance or disease in the neighborhood. The value of the farm has increased from £1 to £9 per acre, and still disposes of the sewage as efficiently as in the commencement.

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BOOK REVIEWS AND NOTICES.

HANDBOOK OF THE DISEASES OF THE NERVOUS SYSTEM. By JAMES ROSS, M. D., LL. D., F. R. C. P., etc., *Philadelphia, Lea Bros. & Co.*, 1886. 8vo.; pp. 726; cloth, $4.50, sheep, $5.50. (St. Louis: J. Linahan; J. H. Chambers & Co.)

It is a poor text book on almost any scientific subject, now-a-days, that is not well illustrated. The writer once heard an old lecturer on surgery say that "a good picture saves lots of painful talk." Good illustrations add indefinitely to the instructiveness and attractiveness of a book. With the constantly improving facilities for making pictures of all kinds, no medical text-book, especially an American one, can afford to be without a fair quota of good illustrations. This feature especially commends the work before us. The illustrations are of a good kind, carefully selected from the best sources, and plentiful.

The arrangement of subjects is very satisfactory. His two introductory chapters on the anatomy and physiology of the nervous system are practical, and quite necessary in a work written for the purpose for which this one is intended, namely, for a text and reference book for students and the busy general practitioner. We like the chapters on *general* morbid anatomy, general symptomatology and general treatment. This arrangement is in keeping with the advancement made in the study of nervous diseases of late years. The subject matter of these chapters shows the author's ability to generalize and group facts in an attractive manner which must be so done to be instructive.

The volume is of convenient size, of good typographical execution, and calculated in every way to become a popular book.

F. R. F.

ON THE WASTING DISEASES OF INFANTS AND CHILDREN. By EUSTACE SMITH, M. D., Lond. Fourth edition. *New York, Wm. Wood & Co.*, 1885. 8vo.; pp. 278; cloth. (Wood's Library, 1885.)

This volume, which was one number of Wood's Library for 1885, is an exceedingly valuable volume for the general practitioner, for

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a large part of his work is among children, and an ability to recognize promptly and treat efficiently the diseases here discussed will be a passport to professional reputation and success.

Dr. Smith's work is an exceedingly valuable aid to any one who has it at hand.

Diseases of the Digestive Organs in Infancy and Childhood. By Louis Starr, M. D., etc. With colored plate and other illustrations. *Philadelphia, P. Blakiston, Son & Co.*, 1886. 8vo.; pp. 385; cloth; $2.50.

Dr. Starr has made good use of excellent opportunities for observation and study, and has given us a volume which is of very great value, especially at this season of the year when so many of the little people are suffering from one or another form of disease of the digestive organs.

The style of the author is pleasing, the descriptions of morbid conditions are graphic, and the therapeutic direction are rational and reliable.

The book is one which we can heartily and fully commend for the study and guidance of those who would keep themselves familiar with the best that can be done for their little clients.

The Ohio State Sanitary Association. Third Annual Meeting, Columbus, O. Feb. 24 and 25, 1886. 8vo.; pp. 106; paper.

Several of the papers contained in this report are of very considerable interest. To one of them we referred editorially in our last issue, viz., that of Prof. C. C. Howard on "Tests for Impurities in Water Available for Physicians' Use."

Dr. Silver's paper on Defective Vision in Childhood, contains much food for thought through his statement in regard to the relative frequency of hypermetropia is inaccurate.

Dr. Darby's paper on Condensed Milk is an interesting one, as is also that entitled Mistakes in School Architecture.

The volume as now presented is a reprint of the papers and account of the meetings as given in *The Sanitarian* for May and June, 1886.

A Compend of Pharmacy. By F. E. Stewart, M. D., Ph. G., etc. Based upon Prof. Joseph P. Remington's "Text-Book of Pharmacy." *Philadelphia: P. Blakiston Son & Co.*, 1886. 12 mo.; pp. 196; cloth; $1.00.

This is No. 11 of the series of Quiz-Compends now in course of publication by Blakiston, Son and Co. The object of a "Quiz-Com-

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pend," as set forth in the preface of this volume is not to teach new facts but rather to present facts already well known to science in a form easy to comprehend, for the purpose of aiding the student in memorizing them." "It is intended for the sole purpose of aiding the student in connection with his lecture and text-book and will not do as a substitute for either."

Dr. Stewart has admirably carried on the objects in view in the preparation of this little volume. The introduction discusses pharmacopeias and Dispensatories, Nomenclature. Part I. The apparatus and operations employed in pharmacy. Part II. The forms of preparations directed by the U. S. P. Parts III. and IV. The preparations respectively of the inorganic and the organic materia medica. It gives in concise form a deal of information regarding the preparation of medicines with which it is of interest to the physician to be familiar.

THE INTERNATIONAL ENCYCLOPEDIA OF SURGERY. A Systematic Treatise of the Theory and Practice of Surgery by Authors of Various Nations. Edited by JOHN ASHHURST, Jr., M.D., Professor of Clinical Surgery in the University of Pennsylvania. Six volumes. 8vo., cloth or sheep. *New York: Wm. Wood & Co.*

The sixth and last volume is now in the hands of the subscribers. The editor in his preface to the last volume says that this task "has occupied all his leisure moments for more than six years, and has involved an amount of anxiety and labor which few can appreciate who have not been engaged in a similar undertaking."

The result should, I think, be gratifying to the editor, for no where in the English language can we find grouped together such a complete exposition of the present condition of the science of surgery. The editor has displayed rare good judgment in the selection of his authors. The publishers have made excellent use of the manuscript and have presented it to the subscribers in fine style. To the editor, however, is due the credit for the material presented and the manner of its presentation.

The wonderful advances made in surgery during the last ten (?) years must make it evident that some of the contributors to the earlier volumes would like to revise and add to their articles as they now stand. Most of the first volume is devoted to subjects of general surgical interest, yet here in the foundation of surgery changes are gradually establishing a new basis for work.

The article on Erysipelas makes no mention of the erysipelas

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cocci to which is now assigned an important place in its history.

Under Hydrophobia and Rabies, no mention is made of Pasteur and his inoculation with the attenuated virus of rabies, of those subjected to the bite of rabid animals.

The contribution on "Operative Surgery in General" says nothing about corrosive sublimate as an antiseptic, yet each one of these papers no doubt reflected well the status of the subject at the time of their publication.

These and other discrepancies between the past and the present do not affect the value of the book, for no one can write to-day and be surely able to defend his position to-morrow, for advances are rapid and unmistakable, yet we cannot say of every new thought or supposed fact that it represents an advance, and even may to-morrow step back on many subjects to an old and familiar ground, and abandon the position of to day.

Special diseases and particular kinds of injuries and operations of general application find place in the first and second volume, while diseases and injuries of special tissues are treated of in volume III. and IV., regional surgery is considered in volume IV., V., and VI.

In volume VI. we find the surgery of the intestinal tract, the genito-urinary apparatus, male and female, together with three essays on diseases of the bones, and one on the treatment of deformities. The exceeding importance of the subjects here discussed make the volume an important one.

The editor is to be congratulated upon this volume as a fitting end of a noble work.

A History of Surgery, by George Jackson Fisher, A. M., M. D., is a reminder to the student of the day that much of the wisdom we assume has the sanction of antiquity, and is not of modern growth.

This Encyclopedia is a valuable addition to our literature, and will find readers in every portion of our country.

H. H. MUDD.

AMPUTATIONS AND THEIR COMPLICATIONS. A Treatise on Amputations of the Extremities and their Complications. By B. A. WATSON, A. M., M. D. *Philadelphia: P. Blakiston, Son & Co.*, 8vo.; pp. 762; cloth, $5.50. (St. Louis, J. H. Chambers & Co.)

This volume is finely printed on good paper and is most profusely illustrated by over 250 engravings.

The author has evidently devoted much thought and time to the study of the subject, and has interested himself, even as he does

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now his readers, not only in the detail of the practical work, but also in the theory of the principles that determine these details and in the history of amputations and ancient surgical procedures.

There is no question but what antiseptic surgery has modified many of the rules governing the management of injuries to the extremities, and consequently those pertaining to amputation. The conditions necessitating amputations and the details of the treatment of amputation wounds are of course largely influenced by antiseptic practice. The author has here placed before the student and surgeon a comprehensive view of the present status of the subject, and especially of the treatment of such wounds.

The special amputations are well illustrated and clearly described.

The description and illustration of artificial limbs is remarkably full and complete, and will prove of much value to the surgeon.

The three closing chapters are devoted to the consideration of various complications of wounds, of pyemia and septicemia, and septic wound complications. They are of general surgical interest although specially applied to amputations.

The book is a valuable contribution to the literature of the subject.

H. H. MUDD.

LADY PHYSICIANS FOR THE WOMEN OF INDIA.—The efforts of Lady Dufferin to raise funds for the establishment of hospitals and dispensaries for the women of India have been very successful, among the largest recent donations being some buildings with fifty acres of land from the Nawab of Rampore, and sums of money equivalent to $50,000 and $60,000, respectively, from a Parsee merchant and a native widow. Madame Anandebar Joshie who came to this country two years ago to study medicine in the Philadelphia Woman's Medical College, graduated at the last commencement. Her husband, just from India, and her aunt, the Pundita Ramabai, who has been for two years Professor of Sanscrit in a woman's college in Cheltenham, England, and who was accompanied by her little daughter five years old, came to this country for the pnrpose of being present at the graduation of Madam Joshie, which is certainly a most significant and important event for the women of India.

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REPORTS ON PROGRESS.

OBSTETRICS AND GYNECOLOGY.

REPORTED BY H. S. BROOKES, M. D.

Inversion of the Uterus.—JAS. H. AVELING, M. D., in discussing this subject, classifies the cases as puerperal and non-puerperal, recent and chronic. The frequency of the condition is 1 in 100,000 cases, ratio of puerperal is 7 to non-puerperal 1.

Inversion may be complete or incomplete, varying from simple indentation of fundus to complete inversion. When the vagina is inverted there exists a prolapsed inverted uterus.

The modes of inversion are three in number:

1. When fundus passes through os first, fundal.
2. When sides pass through os first, lateral.
3. When lower part of uterus is extruded first, cervical.

Causes of inversion are predisposing and determining.

Predisposing; distension or relaxation of parturient canal, large pelvis, erect posture during labor, short cord, first pregnancy, depression of fundus, laceration of cervix, attachment of placenta or tumor to fundus.

Determining causes are automatic, systemic and mechanical. Automatic inversion is caused by its own contraction and is always of the fundal variety, caused by indentation of some body attached to fundus, in puerperal inversion caused by placenta, in non-puerperal inversion caused by some tumor. Systemic inversion is caused by muscular contraction outside of uterus. Mechanical inversion propulsive, extractive or both. Inversion sometimes caused by accumulation of gas. Propulsive, blows upon abdomen, manual compression, weight of abdominal viscera in erect posture; extractive, manual or gravitory; traction upon cord or tumor; delivery in erect posture.

Diagnosis in recent cases by bimanual examination. In recent puerperal inversion, symptoms being urgent, condition critical, protruding fundus may be taken for head, breach, placenta, clot or

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polypus. Symptoms assist; shock, faintness, pelvic discomfort. Protruding mass reposited does not fall again into vagina as would foreign bodies. Sensibility great.

Diagnosis in chronic cases, whether puerperal or non-puerperal, is the same; may be mistaken for polypus and removed, such errors having been recorded. Uterine sound combined with bimanual examination readily differentiates. Difficult cases, growth at fundus with indistinct line of demarcation.

In the aged, prolapsus vaginæ with inversion of uterus may be mistaken for prolapsed uterus with closed os. Diameter at extremities will differentiate.

Treatment. Three methods of reposition, fundal, lateral and cervical.

Fundal, made by pressure upon fundus, causes unnecessary dilatation of cervix and is unscientific; lateral, sliding one-half uterus over the other and through os; cervical reinversion beginning at os and extending upwards until fundus is reached. Best method for chronic inversion.

Recent puerperal inversion can be treated by taxis, lateral method, anesthesia necessary, pressure steady with intervals of rest. Former method of reposition painful, awkward, involving great risk, with but occasional success. Change of theory followed by change of repositors—fundal to cervical method, convex to concave repositor.

Writer's treatment based upon principle of sigmoid axis traction forceps (which he claims to have invented two years prior to Tarnier); concluded that axis pushing by sigmoid repositor would be effective. Result proved a painless, safe, rapid, and successful reposition. Writer cites ten cases, the longest time required for reposition being 54½, the shortest 9; average time 42 minutes. Failure in eleven cases due to (fibroid) disproportion between cap of repositor and fundus. Application of sigmoid repositor. Having diagnosticated inversion, select cap proportioned to fundus. Shoulder braces are attached to a waist belt by safety-pin. Two tapes anteriorly and posteriorly attached at belt extremity between belt and safety-pins. Tapes further attached to rubber ring by which tension is effected, and finally to ear of repositor. Tension increased by shortening tapes at belt. Tension must be equally distributed or cap will slip from fundus. When inversion is reduced, cap should be withdrawn as soon after as possible. An an-

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esthetic may be necessary at times, but with gentle continuous traction is withdrawn in a few minutes.

Sudden Death from Hemorrhage into Abdominal Cavity during Menstruation.—E. J. PENNY was called to R. E. T., aged 27, suddenly taken seriously ill. Arrived within ten minutes, found life extinct with evidence of collapse present. Nine hours previous patient was perfectly well; later complained of pain in region of stomach which she attributed to her present menstrual flow. Pain increased, dyspnea followed, death ensuing. Necropsy made forty-eight hours after, revealed the following: (Thoracic viscera normal). Body well nourished, rigor mortis present, surface blanched, external genitals blood stained. Right abdominal cavity contained large quantity of fluid and semi-coagulated blood. Large clot size of fetal head in right iliac fossa. Clot found to have originated from right ovary. Two ruptured Graafian vesicles were seen, to one of which an ovum was adherent. Surrounding blood vessels distended with clot, one of them being distinctly ruptured, at which site clot was adherent. Left ovary showed signs of recent activity. Uterus normal. Abdominal hemorrhage due to rupture of Graafian follicle, which is admitted by various authors to be rare. Hemorrhage in this case was slow, occupying nine hours, while the amount of blood extravasated was enormous. Verdict of coroner, subject of contribution.—*Brit. Med. Jour.*, March, 1886.

Imperforate Hymen with Retention of Menstrual Flux.—W. H. BAKER, M. D., reports the following interesting case: Swede, age 21 years. Menstrual molimina since 14 years, but no flow. Symptoms, pelvic pains, which at times rendered her unconscious. Married. Intercourse painful and unsatisfactory. Phys. Ex. External organs well developed. Etherized, finger in rectum and bladder, detected indistinct fluctuating tumor nearly filling pelvis. Recto-abdominal palpation excluded distension of uterus or tubes. Hymen incised freely. Forty ounces thick chocolate-colored fluid removed. Uterus and tubes unaffected. Vagina cleansed with solution of mercuric bichloride 1–2000. Canal tamponed with iodoform gauze, which was renewed every forty-eight hours, thus insuring cleanliness, promoting healing and preventing closure of parts. Menstruated but once after, pregnancy following immediately.

Dr. J. B. S. Jackson recalled a case in which post-mortem re-

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vealed uterus and vagina so distended that fundus uteri reached umbilicus, Fallopian tubes feeling like sausages. Fluid was removed gradually, as a free incision would cause sudden peristalsis, possibly causing rupture with septicemia following. Laparotomy advised: then empty uterus and vagina by free incision through hymen. If tubes are not involved, evacuate simply uterus and vagina, cleanse and prevent opposing walls from uniting by adhesive inflammation. —*Boston M. and S. Jour.*

Permanganate of Potassium in Amenorrhea.—FORDYCE BARKER adds his commendation to those of others for potassium permanganate in the treatment of amenorrhea. He find it valuable in three classes of cases:

1. Young ladies between fourteen and fifteen years old who come from the country to finish their education.

2. Ladies, both single and married, who suffer from seasickness, who have started upon a sea voyage within a few days of a menstrual period.

3. Ladies between thirty and forty, generally married, some of whom have borne children, who rapidly begin to gain flesh, while at the same time, menstruation decreases in duration and quantity, until at last it is a mere pretense.

He asserts that he has never known it to fail in these classes of cases. He finds two-grain tablets to be the most eligible means of prescribing it. Each dose should be followed at once by a half glass of water.—*N. Y. Med. Jour.*, Feb. 27, 1886.

Mixture for the Inappetence of Pregnant Women.—FORWOOD recommends the following:

℞ Pulv. colombo rad.,
Pulv. zingiber rad., aa - - - 15. = ℥ss.
Fol. sennæ, - - - - - 4. = ℥i.
Aquæ bullientis, - - - 475. = Oj.

Ft. infusio. Sig. A wineglassful before each meal.—*L'Union Med.*, Feb. 27, '85.

This is almost identical with a formula given as an example of an infusion in the supplement of the U. S. P.

Phlegmasia Alba Dolens.—DR. NOEL GUENEAU DE MUSSY ad-

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vises the following ointment to be applied along the course of the swollen vein in treating phlegmasia alba dolens:

℞ Ext opii.,
Ext. belladonnæ,
Ext. hyosciami,
Ext. conii sem., - aa 3 grammes (grs. xlv).
Adipis purificat., - - - 30 grammes (℥i).

M. Cover them with poultices.—*Les Nouveaux Remèdes*, May 15, 1886.

DISEASES OF GENITO-URINARY ORGANS.

REPORTED BY WILLIS HALL, M. D.

A Case of Nephrectomy.—CHARLES K. BRIDDON, M. D., gives the notes of a very interesting case of nephrectomy, in which he made the usual transversely oblique incision below the lower border of the last rib, and being unable to reach the hilum, determined to make an incision through the abdominal walls for the removal of the kidney.

His patient was a female, æt. 36, married. She had enjoyed good health until a few months ago, when she began to suffer pain in the right side of the abdomen. It was of a continuous character, never paroxysmal; urine turbid, no increased frequency of micturition, no hypogastric pain. She was much annoyed by vomiting, headache and fever. In the right side of the abdomen was a tumor, filling the lumbar region and reaching to the median line. It had somewhat of the form of the kidney, dull on percussion, the dulness above being continuous with that of the liver; urine averaged twenty ounces daily. Over half of its volume was composed of pus; specific gravity 1018; acid, albuminous; no casts. Diagnosis, pyelo-nephritis.

After making the usual incision and failing to find the hilum, the patient was turned upon her back, and an incision about eight inches long was made along the external border of the right rectus muscle. When the incision was made through the peritoneum the tumor was at once exposed, its lower part crossed obliquely by the ascending colon. In separating the peritoneal covering from the anterior surface of tumor, an abscess cavity was accidentally opened, and after guarding against the entrance of pus into the cavity, about eight ounces of pus escaped.

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The abscess cavity was filled with a sponge, charged with an antiseptic. The pedicle was ligated by the transfixion method, and the additional precaution of an elastic ligature resorted to, on the proximal side. The stump, capsule and ligatures were dropped back into the place of the kidney, and the opening in the posterior wall of the peritoneum was closed by continuous sutures in front of them. The ends of the ligatures were passed through a drainage tube in the loin.

The abdominal wound was closed by three lines of sutures, one for the peritoneum, one for the muscular and aponeurotic structures, and one for the integument.

Patient rallied well, but the temperature reached 102° in the first night, pulse 120, she succumbed seventy-eight hours after the operation.

"The kidney removed by operation was found to be the seat of multiple abscess; the largest cavity would have contained an ordinary sized lemon. They communicated one with another, and through their intercommunication, opened by a small orifice into the dilated pelvis.

The latter was occupied by an umbrella shaped calculus, weighing one hundred and twenty-five grains, and measuring an inch and a quarter by an inch. There was a second small oval calculus, and a fragment in one of the abscesses."

When all the cavities had been emptied by expression, and after the organ had been shrunk in strong alcohol, it measured vertically six inches, antero-posteriorly four inches and a half, and transversely three inches and a half.

The point of greatest interest in this case is the absence of the usual symptoms of a calculus. Another is the large size, making removal by abdominal incision necessary, after finding it too large to even explore by the incision in the loin. He agrees with Gross that the mortality from nephrectomy is diminished when preceded by nephrotomy.—*New York Med. Jour.*, Jan. 30, '86.

Treatment of Stricture of the Urethra by Electrolysis.—W. E. STEAVENSON, M. D., M. R. C. P., and W. BRUCE CLARKE, M. A., F. R. C. S., made a report to the Royal Medical and Chirurgical Society, concerning recent observations which they have made with regard to the use of electrolysis, which bear out in every particular the results reported in America.

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Electricity, on account of its power of splitting up compounds into their chemical elements, can be used as a substitute for ordinary caustics to the human body. It can be used with especial advantage to parts difficult of access, such as the male urethra and the uterine cervical canal, and it can also be applied to these and other regions where the application of other caustics is attended with a certain amount of danger. Its effects can be limited to the points touched by the electrode. The caustic effect can be arrested, or not commenced until the applicator, in the form of the electrode, is *in situ*, and the duration and extent of the caustic action is entirely under the control of the will of the operator.

The treatment of stricture of the urethra by this method is the most simple and perhaps the most striking in its results, and has, therefore been selected as the first on which to collect and report observations.

In this paper the details are given of six cases of stricture of the urethra treated by electrolysis, the *modus operandi* is explained, the steps of the operation are given, and the advantages of this method of procedure are thus summed up:

There is usually no bleeding. If hemorrhage does occur, it is accidental, and usually shows that too strong a current has been used. No anesthetic is required. If pain or discomfort is produced it is trifling. The patient can, in the case of slight strictures, pursue his ordinary occupations during the period of treatment. No antiseptics are required, as the process itself is aseptic. In the majority of cases there is no contraction or return of the stricture.

Eschars produced by caustic alkalies are said to heal with less contraction than wounds produced in any other way, and electrolysis with the negative pole of a battery is a means of applying the same destructive action as is caused by the caustic alkalies to parts difficult of access in a way which is impossible by any other method. Probably other chemical decompositions and combinations take place at the negative pole besides those characteristic of the caustic alkalies, but they have not up to the present time been thoroughly made out.

Urethral Calculus.—DR. J. WARREN MASON operated for stone in the urethra, on a patient in 1865. He was then four and a half years old, his parents having noticed frequent micturition for eighteen months—twelve times in twenty-four hours. There were in-

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creasing difficulty and pain in the passage of urine, which had contained blood for three months. There was no steady stream but the urine dripped.

He drew continually upon the end of the penis, which was large and inflamed.

A stone was detected by the sound and the urethra found to be unusually capacious.

The stone the size of a filbert, was removed by Dr. Warren through a perineal incision into the prostatic portion of the urethra. Twenty years later he returned with a stone in a pocket in the membranous or the anterior part of the prostatic urethra, and this was removed by Dr. Porter, at the Massachusetts General Hospital.—*Boston Med. and Surg. Journal*, Jan. 7, '86.

MORTALITY AMONG PHYSICIANS.—Dr. W. Ogle states that among English physicians in the years 1880, '81 and '82, the mortality was 25.93 per mille, while that of barristers was 20.23 and of clergymen 15.53. Scarlet fever killed 59 out of a million physicians, while of adults in other pursuits only 16.01 died of this disease. The figures for diphtheria were 59 and 14 respectively for physicians and other adults, for erysipelas 172 and 136, and for typhoid fever 311 and 238. Pulmonary disease was a less frequent cause of death for physicians than for others. But deaths from alcoholism were more frequent among physicians than among other adults.—*Med. Record*, July 10.

NOVEL SUGGESTION.—Belaseff suggests in the *Centralbl. f. Gyn.*, No. 19, 86, an ingenious method of insuring absolute cleanliness of the hands before performing surgical or obstetrical operations. It consists in rendering visible all the nooks and crannies in which may lurk matter possibly or probably infectious. The blue pigment, aqua marina, is thoroughly rubbed up with vaseline, and the hands of the surgeon are carefully rubbed with the mixture until the grooves and crevices under and around the nails are thoroughly filled with it. Soap and water and a nailbrush are then made use of, and when all traces of the pigment are removed, it may be assumed that every trace of soil or morbid element has been removed with it.—*Med. News*, June 26.

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SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting, May 20, 1886.

Dr. Coles read a paper on Post Partum Hemorrhage. *Vide* p. 97.

Dr. Boisliniere.—The paper is so orthodox that there is nothing that can be said against it; but I wish it had been made clearer in some parts of it. For instance, in cases where the placenta is adherent, and the uterus is in a state of inertia, you say you will wait. In such a case there is no bleeding, because the surfaces of the placenta and the uterus are in close apposition. We will admit that before interfering in those cases, one should wait for uterine action. Now in cases where the placenta is only partially adherent, you seem to think that nothing should be done; that there will be no dangerous bleeding. Now there may be a great deal of bleeding if only one-fourth of the placenta is detached. It seems to me that it is not a very safe practice in a case of that kind to wait. If the separation of the placenta is partial and there is hemorrhage, I think that it should be interfered with. I don't speak of retained placenta but of adherent placenta, because, whilst waiting for powerful uterine action sufficient to detach the placenta, dangerous bleeding may occur. In cases where the uterine action is inadequate to separate the adherent placenta, if the hemorrhage continues, the patient's life may be endangered. In some cases the uterus is utterly incapable of separating an adherent placenta. I think the best method of artificial removal of the placenta is simply by putting your hand into the uterus and gradually detaching the placenta. Therefore, whilst I admit that if you have a case of complete adhesion of the placenta, in which case there is not apt to be hemorrhage, you may wait for uterine action; where there is a partial separation of the placenta, non-interference may be fraught with great danger to

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the woman, and I think that it is the duty of the accoucheur, if the hemorrhage continues, after waiting a reasonable time, to produce a separation of the placenta, and its delivery. This is not always easily done, and we may leave parts of it in the uterus. In that case we may have septicemia. It is very easy to leave some cotyledons—some placental tufts in the uterus which may cause a great deal of trouble.

Dr. Coles.—I stated in my paper that in case of abnormal adhesions, the placenta should be separated, so that the uterus can contract, following your hand down so as to prevent hemorrhage.

Dr. Boisliniere.—You spoke, however, of cases of partial adhesion. Then there is another point, you stated that the delivery of the placenta is not a remedial agent preventing hemorrhage. I admit that hemorrhage does not come from the placenta; it comes from the uterine sinuses. But the presence of the placenta tends to increase the bulk of the uterus. Besides this, kneading of the uterus, both inside and outside, is recommended in order to induce contraction and prevent hemorrhage. I do not think you can do this without removing the placenta and all the clots.

Dr. Coles.—If the uterus is relaxed you can do it very easily.

Dr. Boisliniere.—If I had a case of hemorrhage with a retained placenta, the first step should be to remove the placenta, and the next one to clear out the clots from the uterine cavity. Then, when the uterus is empty, titillate it inside with the fingers, and also resort to external kneading to secure firm contraction; this must be done very quickly. Therefore I would say first empty the uterus of the placenta and clots; it should also be emptied of the placenta in order to make room for the manipulation with your hand. The French apply lemon juice to the inside of the uterus and some of them use brandy, and I think myself it is a good thing to have brandy on hand, also some sugar, because you can make Roman punch, which is also a good thing to have on hand, and the physician himself can indulge in it occasionally; but at any rate I recommend that we use a styptic internally, or titillate the uterus. With a part of your paper I entirely agree. Give the patient time to recuperate, and allow nature an opportunity to assert itself. I do not agree with the physicians who are urging Credé's method at this day; it is very dangerous as some advocate it, that forcible expression of the placenta immediately after the delivery of the child, before the uterus has had an opportunity to contract and throw off the placenta

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by its own action. Some of these gentlemen advocate that as soon as the child is born, the placenta be taken away. I would certainly wait until the uterus had an opportunity to act, allowing a reasonable time for recuperation before removing it. I think, however, as I have stated, that when there is hemorrhage and the placenta is partially adherent you must get rid of it by gentle manipulation.

Dr. Gregory.—I will ask Dr. Boisliniere, when you have to interfere to prevent hemorrhage, whether it is not as essential to remove clots as to remove the placenta?

Dr. Boisliniere.—Certainly; you cannot manipulate the uterus when it is filled with clots nor make an application to it; you must empty the uterus first, both of the placenta and all clots; and I would advise the use of the hand, as by this means you not only get rid of the placenta and clots, but you very often secure contraction.

Dr. Gregory.—I will ask whether the best stimulant to an imperfectly contracting uterus is not the hand itself. It comes in direct contact with the inner surface of the uterine wall, and by making pressure on the outside. Is there anything in the use of lemon or astringents in the uterus which cannot be obtained by the use of the hand?

Dr. Boisliniere.—There is nothing like the hand, titillating the uterus inside, and kneading it outside. Of course there are cases in which the nervous system is at the back of all the trouble, and in those cases it is sometimes necessary to treat the nervous trouble in order to effect any good.

Dr. G. A. Moses.—Dr. Coles' paper was one of especial interest to me from the fact in the first place that his case was one of particular interest, and it so happens that I have lately had a similar case, though it was not a twin birth to complicate it as his did, but a uterine fibroid, in this case, however, a very large one. The woman had not been pregnant before in twelve years; she miscarried at about six and a half months. The uterus at that time reached very nearly to the diaphragm, and undoubtedly the delivery was occasioned by the extraordinary distention and irritation of the uterine muscles. The disposition to irregular contraction was particularly remarkable and interesting in this case, and exemplifies very fully what Dr. Coles has stated as to the presence of a neoplasm on the walls of the uterus, particularly an intramural tumor, producing irregular contraction and preventing symmetrical

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contraction. And in this case the placenta was retained by irregular contraction; there was very little hemorrhage, and, notwithstanding the violent pains, there were no contractile efforts; there were no extrusive efforts. The uterus contracted like a cylinder, the fundus being high, and the placenta was included in the tightly contracted cylindrical cavity. There was no effort at extrusion after delivery for half an hour or more, and at the end of that time the placenta was extracted very carefully, little by little, the uterus not aiding a particle. This cylindrical contraction continued; there was no hemorrhage. Another interesting point in this case of Dr. Coles, and in which mine was somewhat similar, was that he speaks of acute arthritic pain. This patient had the same pain in the knee and ankle of the right limb only, so violent that I was obliged to give a hypodermic injection of morphine. She never had any pain in the left side to amount to anything. It continued for several days. She had to use the morphine twenty-four or thirty-six hours in order relieve the intense neuralgic pain. She had not lost any blood to amount to anything at all.

Dr. McPheeters.—What do you attribute the pain to?

Dr. G. A. Moses.—That is a matter that I am not prepared to state definitely; it seems to be a neurotic condition. The fibroid is still there. It has only been twenty days since her confinement. I am in hopes it will be diminished by the involution of the uterus.

The principal point in Dr. Cole's paper is an argument against the forcible removal of the placenta, that is, if the placenta is the occasion of hemorrhage. He speaks of Simpson's idea that the hemorrhage was placental. That has been exploded long since, and Simpson advocated that particularly in reference to placenta previa, that the hemorrhage was placental and the proper remedy was separation of the placenta. I don't think that opinion is sustained by any one else; it is entirely disproved by more recent investigation. Undoubtedly Dr. Coles is right as to the source of the hemorrhage, that is, that it is caused where there is partial adherent placenta, by the bleeding of the uterine sinuses. He is also right in saying that it is unnecessary and bad practice to hasten the delivery of the placenta, unless there is some immediate cause for it, and I think there is no question of the fact that post partum hemorrhage is undoubtedly the most frequent indication for the emptying of the uterus entirely, no matter what may be

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the cause of it, whether it is retained placenta or blood clots. There is no doubt of the fact that, apart from the presence of foreign bodies, neoplasms, inertia is the common cause of post partum hemorrhage. Now, what is the cause of that inertia? Suppose that the placenta, as is commonly the case, is entirely separated, no doubt that is ordinarily either associated with the last pain or very shortly afterwards — the placenta is separated from its attachment. We see this frequently; we see the placenta entirely thrown off with the last pain, and it follows the delivery of the child. If the labor has been a tedious one, or the uterus has been greatly distended, as in this case by twins, we will often find inertia. There is a sense of fatigue that does not amount to what we consider inertia, and the simple fact that the placenta is thrown off and loose, as we frequently see, and performs the part of a plug in closing up the different uterine vessels, preventing extrusion of blood, which is poured out from these vessels, under these circumstances the fatigued uterus fails to expel it entirely, and hemorrhage occurs and gradual dilation of the cavity takes place. Undoubtedly here the placenta tends to cause the hemorrhage. I don't mean to say that is a common thing, but I am satisfied that I have seen cases where this seemed to be the immediate cause of the failing of the fatigued uterus and where no absolute inertia had existed at all. If this is removed and the uterus is emptied, contraction rapidly takes place and no further hemorrhage follows. Another way, I think, that the retained placenta, not an adherent but simply a retained placenta, may occasion hemorrhage, is simply by its presence as an irritant, as a foreign body, through some unexplained action of the nervous system. This irritating action, upon the inhibitory system, prevents uterine contraction, and so encourages hemorrhage. I think this occasionally is the cause of hemorrhage. Of course in this case the removal of the placenta is the proper course of treatment.

It is an absolute necessity, and while we may wait and use the ordinary means, a hypodermic injection of ergot, administration of stimulants, electricity and so on, still if these should fail within a reasonable time, I think it is the duty of the physician to remove the placenta and such blood clots as may be present in the cavity. I think it would be unwise to pursue any other course, so that under all circumstances where there is threatened post partum

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hemorrhage, no matter what the theory may be as to the inciting cause of the hemorrhage, the first indication of the treatment is undoubtedly to empty the cavity, and if the placenta is partially adherent, and there is, as the doctor states, an irregular contraction, which of course promotes hemorrhage, under these circumstances he says very properly that he would remove the placenta as carefully and as thoroughly as possible, for the same of promoting symmetrical contraction, and I think the sake rule would hold where the placenta is retained and imperfect contraction exists. The point I wish to make is the fact that the presence of the placenta itself may, under certain circumstances, incite, or at least, favor the continuance of hemorrhage and unsymmetrical contraction of the organ.

Dr. Gehrung. I am afraid the preceding speakers have covered the ground so thoroughly that there is very little left to be said on this subject. I differ with Dr. Coles in regard to removing the placenta in cases of hemorrhage. I think the placenta will keep up the hemorrhage on the same principle as the fibroid or any other obstruction to contraction would do. If the placenta actually filled the uterine cavity, as the ovum did before, then there would be no hurry or haste to remove the placenta; but the placenta in fact never does fill the womb completely. It is irregular in outline; it leaves spaces where in fact the womb cannot solidly contract around it. Therefore, hemorrhage cannot be stopped, as there are always more or less bleeding mouths which cannot be covered. It is very similar to intra-uterine growths in this respect. No matter how small these growths may be, if they are smaller than a pea, yet if hemorrhage is once started, the uterus cannot contract around them because of the irregularity of the little bodies. Besides it seems that when there is a body attached to any part of the uterus the nervous energy, from irritation or some other influence produced in the attached body, cause a contraction in that part alone, or it may either contract alone in that part or in other divisions of the uterine wall. It seems bad to be obliged to tear off a partly adherent placenta. If the placenta is non-adherent, it shows at least that its point of maturity has been reached, and it should be cast off and removed if possible, thus giving the whole cavity the same chance to contract as that part which is freed from it. A. P. C. Wilson, of Baltimore, recommends not only the removal of the placenta as rapidly as possible but inserting your hand, and if this

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with some titillation of the womb is insufficient to make it contract, then he advises that the finger nails be used to stimulate the womb to contract. On the other hand I believe that there are certain causes of inertia of the womb entirely outside of the womb, resting in the nervous system, and in such cases there is no clawing or use of the hands in the womb that will remove the inertia; that inertia likewise may result from the condition of the blood itself, from certain blood deteriorations; and there also mere irritation and titillation will not remove the difficulty, though probably when the placenta is removed even in those cases, we run a better chance than if it were left in the uterus on account of the causes stated by Dr. Moses, the placenta forming a plug and retaining the blood in the womb, increasing the dilatation, as well as from the irregularity of the body itself.

Dr. McPheeters.—We would like to hear from Dr. Gregory on this subject.

Dr. Gregory.—I really have nothing to say in this case. My observation in these cases has been so very limited that I feel I am incompetent to give an opinion. There must be a certain experience behind our opinions to enable us to put them forth with any force and vigor. Now I don't think I have attended fifty cases of midwifery in my life; but I came here to-night believing, and I still feel, that if a hemorrhage occurs under the circumstances described in the paper, the first duty of the obstetrician is to empty the uterus. I should feel it just as much my duty to remove the placenta as to remove the blood clots, and in the few cases of midwifery that I have attended, I was impressed with the absolute importance of never letting go the womb until it was contracted; and when the child had to be attended to after its delivery, I always had the nurse or assistant put the hand on the uterus and press upon it until I could get to it myself, and the very moment that the hemorrhage came on I would feel it my duty to put my hand into the uterus and remove the placenta. In the absence of hemorrhage I would wait may be half an hour or an hour, I would give time for re-action, as it were, and then if the placenta did not come away, I would put my finger in and remove it. I don't believe in interfering unless there is hemorrhage; but if there is a hemorrhage, it seems to me that it is the duty of the physician to empty the uterus; and it seems to me that the very act of removing the placenta is the very best possible stimulant for securing a contraction.

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Dr. Coles.—Suppose the uterus is relaxed and the placenta is partially adherent and you remove it, don't you increase the hemorrhage?

Dr. Gregory.—I think that the removal of the placenta is the very best way of securing contraction.

Dr. Coles—Suppose that fails?

Dr. Gregory.—Then I would believe there is something behind in the nervous centres which is an obstacle to the contraction of the uterus, and the removal of this obstacle then is essential to its security. Of course I cannot expect to atone for that, but I should expect that the uterus would contract in ordinary cases. My mind is impressed with the idea that the best way of securing this contraction is to remove the placenta. Of course if there is something away back behind this trouble, I might attack the nervous centres with ergot hypodermically injected, and, in that way, I might produce a favorable action of the uterus, but I should feel that it was my duty to empty the uterus and remove the placenta, and, there being adhesions, I would feel it was my duty to try and remove this adhesion so as to give the uterus an opportunity to contract.

Dr. Prewitt.—Dr. Gregory has touched upon one or two points that occurred to me while the doctor was reading his paper; and still I think that Dr. Coles' paper in many respects presented simply axiomatic truths so far as that is concerned; still I think that there is a ground for criticism in errors of omission that are implied rather than otherwise. For instance he speaks of the objection to the removal of the placenta when the uterus is relaxed, whereas I understand him that where the placenta is partially detached and bleeding is going on and the uterus is relaxed, it would not be wise to remove the placenta, because in that case we would simply open up a larger number of bleeding sluices that would promote the excess of hemorrhage. Now that would be true, providing we could suppose that possible while we were manipulating the uterus upon the outside and inside, but we would not expect the uterus to remain in this state of absolute inertia under those circumstances. Of course if it did, it would increase the bleeding surfaces, the area of hemorrhage. The same principle is acted upon by the surgeon in cases of extra-uterine pregnancy where the fetus is adherent to the walls of a tissue which is not contractile at all. Now in this case there is nothing to contract; consequently if the placenta was re-

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moved, we would open the mouths of the vessels, which would certainly bleed, and it would be absolutely impossible to control this bleeding because there is no tissue there to contract down upon the vessels and prevent the outpouring of the blood, so that in that case it would be exceedingly unwise to remove the placenta, and so it would be unwise in the case of an ordinary pregnancy, provided we knew we could not induce the contraction of the uterus so as to prevent the bleeding of these vessels; but by the simple manipulation of the uterus in the removal of the placenta, we ordinarily induce a contraction which prevents further hemorrhage. The question then is whether we could so manipulate the uterus without causing a contraction, whether it is possible that the uterus should remain absolutely inert and that no contraction should take place. If it was so, then it is probable that nothing that we could do would save the woman from bleeding to death. But, if that were the case, I don't think we could prevent the woman from bleeding to death where there is a hemorrhage from a partially detached placenta. The doctor speaks of no bleeding taking place while it is adherent. In that case he advises that the placenta be removed. Now, how can he determine that there will be no bleeding when the placenta is removed, he can only determine that by removing the placenta.

Dr. Boisliniere.—Dr. Coles stated when the placenta was completely adherent, there would be no hemorrhage possible.

Dr. Prewitt.—Certainly not. Where the placenta was completely adherent there would be no hemorrhage, and yet in this case I understood the doctor to say he would advise a removal of the placenta, because the adherent placenta could not be thrown off by the uterus; in that case he would advise detachment. Now, in a case in which uterine action could not detach the placenta, he cannot tell whether the removal of the placenta would result in hemorrhage or not, and the question is if the uterus contracts firmly down upon it, would there be any hemorrhage, even though it was partially displaced. I don't think there could be any bleeding in a case where the uterus was firmly contracted down, no matter if one-third of the placenta was adherent and regular manipulation of the fingers detached it. Now, the remark of Dr. Boisliniere was a surprise to me. He speaks of absolute inertia of the uterus, and he says that we cannot control that because the nervous system is in a peculiar condition. Now, it has struck me that ergot acts in all

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cases through the nervous system: that it acts upon the nervous system by the effect upon the contractile fibres of the blood vessels through the vaso-motor nerves. It certainly does act locally, but it acts through the nervous system, and it seems to me that it influences the uterus in the same way. I think it is generally admitted that in these cases where there is already contraction of the uterus ergot is the remedy to use.

Dr. Boisliniere.—I think where there is complete inertia it does not do it.

Dr. Prewitt.—Where you use ergot I imagine it would be of service. It seems to me that ergot acts upon the uterus through the nervous system, and, if the trouble is back in the nervous centres, we must reach those nervous centres in some way, either by reflex action from the surface of the womb from manipulation, or through the action of ergot upon these nerve centres, and the ergot, I take it, in many cases at least, will have that very effect that it would act through the the nerve centre. I can understand how it might be that in some cases there would be a failure of response to the ergot. I understand how that would be the case and why it could only come in as an adjunct or an aid to other measures. Of course we all agree that the placenta does not furnish the blood which appears in the hemorrhage. If it does, then our ideas of the relationship between the placenta and the uterus are false. My idea, at least, is that if we could, by any sort of process, detach the placenta without disturbing the cavernous dilatation of the uterus, then there would not be one drop of blood lost. The relationship between the sinuses of the uterus and the sinuses of the placenta is simply that of apposition, contiguity; the nourishment of the child and oxidation of the blood go on through the walls without any direct mingling of the blood, and of course in that case the uterus furnishes the blood and not the placenta—the placenta furnishes none except it comes from the child. I agree with Dr. Moses that the placenta may be in such a position that when it is easily detached it will drop down and plug up the os, and we would have not only interference with the contraction of the uterus, but we would have it doing precisely what obstetricians would condemn, putting a tampon to the vagina and plugging that up and plugging up the blood in the os instead of the vagina as the unwise obstetrician would do. But when we have a firm contraction of the uterus we don't have hemorrhage. The thing first to be done is to

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get rid of the placenta, excite contraction as far as we can by external manipulation, by the introduction of the hand, and if we cannot bring on contraction by that process I don't know how we can do it.

Dr. S. G. Moses.—I have very little to say in addition to what has already been said by the gentlemen on this subject. I coincide with the view that the placenta must be removed under certain circumstances.

Dr. McPheeters.—I listened to Dr. Coles' paper with very great interest. He has ably presented his views on an important subject, and although not fully agreeing with him in all the positions that he has assumed, I regard his paper as a timely and suggestive one. I concur in opinion with gentlemen who have preceded me in this discussion, as to the desirability and necessity of emptying the uterus of all its contents in case of hemorrhage, and thus placing it in the most favorable condition for prompt and complete contraction. Although not insisting on an immediate removal of the placenta after delivery, I never feel satisfied nor safe until it is favorably disposed of. My rule is always to secure its expulsion as soon as practicable, and when manual interference is necessary to resort to it without delay, of course always having regard to the condition of the patient. Post partum hemorrhage is usually caused by uterine inertia, and non-closing of the bleeding sinuses by normal contraction, and of course whatever facilitates this tends to prevent hemorrhage. I can imagine a case in which even a detached placenta may act as a tampon to the interior of the womb, but in the vast majority of cases its presence does harm by preventing involution. In cases of hemorrhage when there is partial adhesion, the rule which I have invariably followed is to effect complete detachment and removal of the placenta as speedily as possible, and then by means of the external and internal manipulations mentioned by Dr. Boisliniere and combined with the internal administration of ergot, endeavor to bring about prompt uterine contraction. In twin cases, such as mentioned by Dr. Coles, or whatever other cause may give rise to extreme distention of the uterus, the muscular fibres may become so weakened and attenuated as not promptly to contract even when relieved of its contents. Such a condition, of course, favors hemorrhage, and the course to be pursued is obvious. These cases of post partum hemorrhage, generally sudden, and always alarming, tax to the utmost the skill and fortitude of the phy-

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sician, who must at all times be prepared promptly to meet the exigencies of the occasion.

Dr. Barret.—I am at a loss to catch the drift of this subject, as I was not present when the paper was read. If Dr. Coles has taken the position that the uterus ought not to be emptied in any case of hemorrhage, I must dissent from it. As Dr. Gregory has stated, the first thing to be done in cases of inertia of the uterus is to empty the cavity. The methods by which hemorrhage is controlled and checked are first to form clots, emboli; second, by the contraction of the uterus and retraction of the vessels near the mouth. Now, in cases where the excitability of the nerves is so far gone that stimulants won't cause contraction of the uterus, where kneading and irritation by the introduction of the hand, making cold applications and such stimulants are unavailing, when the patient is so far reduced that the nervous centres are incapable of responding to these stimulants, then the only thing is to inject something that will coagulate the blood. I have never seen a case myself that wouldn't respond to some irritation; I have never seen a case of relaxed uterus in which the hemorrhage was incapable of being arrested by some of these methods. I know that there are such cases, but I have not seen one. I should prefer to have the uterus empty, and then to apply my irritant inside and outside, and it is certainly necessary to have the uterus empty in order to make a local application of a styptic. If I cannot control the hemorrhage by the means that are at our command, I should not like to trust to stand by and wait for the uterus to contract of itself; I would rather be in a position to command the situation as well as it could be commanded, rather than to trust to the woman's gathering strength and waiting for the re-action to take place before attempting to stimulate the uterus to contraction. It does not require much sometimes to coagulate the blood, and it is stated by Barnes, who is certainly a good authority, that the use of styptics will, in some cases, prevent the hemorrhage in a case of placenta previa. Where there was bleeding following the removal of the placenta, where the placenta was located very low down on the uterus, the injection of the persulphate of iron was sufficient to stop the hemorrhage in these cases; it takes a very small amount of coagulum to close the mouths of these vessels. We know that hemorrhage is frequently stopped by a woman fainting. The hemorrhage is arrested for a moment, and in this short space of time the mouths of the vessels become closed up, and there

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will be no more hemorrhage. In a great many of these cases the blood is very highly coagulable. I presented a case to the St. Louis Medical Society two or three years ago where the woman lost about a quarter of a pint of blood after confinement, and the blood was very coagulable, so that it formed a little mound between her limbs.

Dr. Coles.—I think if we could go over this paper step by step and take up all these propositions one at a time, we would find that we do not differ as widely as we seem to. I am satisfied that some of the gentlemen here did not catch the idea that I had at all. In the first place I am not in favor of allowing the placenta to remain in the uterus for an indefinite length of time, nor am I in favor of sitting down and doing nothing. But I want to state a case that occurred in my practice about four years ago. I will state it very briefly. I was called to Collinsville, Ill., to see a woman who had been in labor three days, and delivered her with the forceps of a very large child. The uterus did not contract apparently at all. Her pains had ceased for a good while before the forceps were applied; however, there was considerable hemorrhage following the birth of the child. She was drawn to the edge of the bed and the blood was flowing down into a bucket. I felt the flaccid uterus and I could feel the placenta very plainly; there was no apparent disposition to contract on the part of the uterus. I put my hand into the uterus, and it showed a little contraction; and I immediately commenced peeling off the placenta. There were no abnormal adhesions. The flow of blood increased tremendously. The uterus relaxed as before, and although I used all the means I could, making hot water injections, introducing a sponge saturated with vinegar, and applying ice, and using every means externally and internally which suggested itself to me, yet in spite of all, the hemorrhage continued and she died in about three days; she never entirely rallied. That case made an impression on my mind. I know very well that I made a mistake in detaching the placenta, because if I had left it in position, there was probably only a small area of bleeding surface, and if I had kept my hand on the uterus and stimulated it to contraction, I could probably have controlled the bleeding. I had another case in the same town four months after that, a twin pregnancy. This woman had been in labor a long time. I delivered one child with the forceps and the other, which was dead, with a crochet. The woman was in such a condition that

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the uterus did not contract at all. There was not a single drop of blood coming from the uterus. The placenta was not detached at any point. We gave her hypodermic injections of brandy, and she rallied and we put her to bed. I advised her attendant physician not to remove the placenta but to wait, the case which I had had four months before having made me cautious about forcibly detaching and withdrawing the placenta. He agreed with me and no attempt was made to forcibly remove this mass. I went home with the understanding that no effort was to be made until the next morning. In the meantime she had been given hypodermic injections of ergot. The uterus was commencing to contract and next day the patient was put under an anesthetic and the placenta delivered. The woman rallied and she had no serious hemorrhage, and got well.

Dr. Gregory.—In your first case why did you put in your hand and detach the placenta? It was because she had hemorrhage, was it not, and you felt that you were warranted in interfering?

Dr. Coles.—Yes, sir; she had serious hemorrhage, and in attempting to relieve her, I made a mistake.

Dr. Gregory.—In the second case there was no hemorrhage?

Dr. Coles.—No, sir. I had learned a valuable lesson.

Dr. Gregory.—I think you treated both cases exactly right, because in one case there was serious hemorrhage and you interfered and removed the placenta; in the other case there was no hemorrhage, and you did not interfere.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, May 18, 1886. Dr. Spencer in the chair.

Dislocation of Astragalus.

Dr. Prewitt presented a patient, a man, who, in October last, fell from a scaffold forty feet, lighting upon his feet and injuring both his ankles. He came under Dr. Prewitt's observation recently. It was difficult to say what the character of the injury was. Both ankles were very much injured, and the patient stated that the physician who saw the case soon after it occurred, thought that there was no fracture, but there was already a great deal of swelling, and

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of course, he was liable to error in diagnosis. Dr. Prewitt was inclined to think there was a fracture of the malleolus in one foot, the other he didn't feel so sure about. There was a projection backwards that was difficult to understand, unless there was a displacement of the astragalus. There certainly had been either a fracture or a partial dislocation, and just which it was now difficult to say. In the ordinary condition of things, the tendo Achillis occupies a position some distance behind the bones of the leg; there is always a space through which one can easily thrust two fingers. In this case that space is occupied in both feet by bone, and what bone it is is the question. Dislocation of the astragalus backwards is such a rare accident that it is of more than usual interest when we hear of it, and, of course, the reporter of a case of this kind should be very confident of the diagnosis before reporting it as such. He had reported a case of that kind something like a year ago and presented the patient. In that case there was a peculiar deformity, viz., that peculiar twisting of the foot which is said to accompany dislocation of the astragalus.

Dr. Leete asked if the foot could be twisted in that peculiar way in any other condition.

Dr. Prewitt didn't think it could. Professor Hamilton, in his work on Surgery, reports only eight cases as having been found and placed upon record, only one of which was reduced, and that perhaps immediately after the occurrence, and in that case there was a laceration of the tissues that permitted the replacement. That made this case all the more interesting, and he had examined it several times. He thought it could be demonstrated that there was a fracture of the lower end of the tibia involving the malleolus through to the joint of the left foot, and that the splinters and a considerable portion of the body of the bone is below it, necessarily throwing it backwards and downwards by the wedge-like action of the astragalus. This would account for the projection backwards in that foot which he could not account for on any other theory. The bone does not rest against the tendo Achillis in the same way that it does in the other foot; in the other foot the space between the tendo Achillis and the bone is filled with bone and the entire space across is filled beyond the tendo Achillis as well, and he thought he could determine the outline of the malleolus. He was satisfied that it was not a fracture of the lower extremity of the tibia but a dislocation of the astragalus backwards. There was

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not that peculiar twisting of the foot which occurred in the other case, and yet not enough cases have been reported to enable us to say what deformity will present in every case. In the right foot he thought he could feel the scaphoid immediately under the front of the tibia. The natural position of the head of the astragalus is rather in front of the anterior surface of the tibia, and it projects at least three-quarters of an inch in front of the line of the tibia, but in that case one could move the bone and press the scaphoid, but could not feel the head of the astragalus.

Dr. Baumgarten said the doctor meant that only the astragalus was pushed backwards but without the scaphoid and other bones.

Dr. Prewitt said he meant to say that the tibia and fibula were forced only a little forward on the head of the astragalus.

Dr. Leete asked if that could not be determined by accurate measurement.

Dr. Prewitt asked what one would compare it with, as the other foot was injured also. The fibula and tibia were thrown forwards and rest upon the head of the astragalus, and they were carried sufficiently forward in this case, he thought, to bring the articulated border of the perpendicular surface of the scaphoid in a line with the anterior border of the tibia. Of course the man is badly crippled and it is likely to be permanent, although he thought that in time he would be enabled to walk better.

Dr. Fry asked if any of the other joints were injured.

Dr. Prewitt said the injury seemed to be limited to the ankle joints.

INWARD DISLOCATION OF FOREARM.

Dr. Prewitt said he had seen lately another rare dislocation, a dislocation of both bones of the forearm inwards. Of course it is always a partial dislocation. The patient was a child a few years of age, which, in running along with a pitcher, fell and put her elbow out of place. Her father and one of the neighbors pulled at the arm, and said something cracked. The patient was not seen by a medical practitioner until some weeks after the accident, when it was brought to him. There was probably a fracture above the condyles; there was a wound of the soft parts near the elbow that bled quite freely when pulled upon, as if something had been stuck into the arm, no doubt the lower end of the fractured humerus that punctured the skin. It was about healed over; there was a little

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scab over it; and it bled a little when he manipulated the arm with a view of replacing it. There was a good deal of thickening about the parts, and it was quite likely that they did pull the bone into position and kept it so. It had made a good result. If there was a fracture, it was supra-condyloid, but the bones of the forearm were out of position. The inner border of the ulna was upon a line with the external apex of the internal upper condyle. The hand and forearm were developed inwards, and the axis of the humerus, continued upon a straight line, would fall outside the middle of the palm; the external condyle projects outwards. Instead of the head of the radius being on the line with the condyle, it is resting upon the middle, as it were, of the articular surface of the humerus, and the condyle projects outward very markedly. The surface of the olecranon is slipped over entirely from the prominence which marks the articular surface of the humerus and rests upon the condyle, so that the border is on the side or upper end or line with the extremity of the internal surface of the condyle, and naturally diverts the arm from the normal direction and throws it inwards. The arm is in a partially flexed position, and rotation and supination are pretty fair, and not as good as they will be in time, but still there is some fracture. Now this is a very rare accident. Dr. Prewitt reported a case in 1879 in the Courier of Medicine, and Professor Hamilton in the last edition of his work cites it as one among few cases—only six or seven cases of this accident reported; they have never been reduced after this length of time. The bone having once taken the elbow over its ridge cannot be gotten back again; it cannot be separated sufficiently far from the articular surface to enable the surgeon to carry it back over and bring it over the articular surfaces of the bone.

Stated Meeting June 1, 1886. Dr. Lemen in the chair.

Vaginismus.

Dr. Dixon reported the case of a young lady, married for about five years, who was troubled with vaginismus. She had been confined twice, and the vaginismus was so excessive that it even hurt her on locomotion. Examination showed a number of caruncule myrtiformes, the excision of which relieved the trouble. Some of them were an inch long, and from a quarter to three-eighths of an inch thick. He had been unable to learn of any other case where a per-

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son who had borne one or more children had been troubled with anything of this kind.

Dr. Lemen asked if these caruncule were present before the first confinement.

Dr. Dixon said he could not find out, but she complained of pain on intercourse ever since the first time, and she said it would almost throw her into a spasm every time she had intercourse.

Dr. Nelson asked if she carried the child to full term.

Dr. Dixon said one child is living; the other was delivered at full term, but it was a breech presentation and the child was born dead, as he understood; its neck was broken in the delivery in producing traction.

Dr. Grindon asked the difference in signification between the terms vaginismus and dyspareunia; whether they are strictly synonymous, or whether the term vaginismus applies to cases where there is a severe contraction of the fibres of the vagina so that coitus is difficult or impossible, and the term dyspareunia to a very painful condition.

Dr. Nelson said that he had never had occasion to formulate the distinction, but it seemed to him that dyspareunia would be simply painful coitus and vaginismus a difficulty of coitus either attended with pain or not. There was a case reported in this society a year and a half or two years ago by Dr. Bauduy, which he termed "mental vaginismus," in which it seemed the difficulty was entirely a mental trouble. The woman had conceived the idea that the act of coition must of necessity be excessively painful, and abhorred it, and fought against it. One case was cited in which manifestations of that kind were present, and were persisted in, but were cured by the probability that if it continued long a divorce would be obtained.

DISTORTED NASAL SEPTUM.

Dr. Dixon reported a case of operation for diverted septum without the use of chloroform or ether, merely by placing a pledget of cotton, saturated with a four per cent solution of hydrochlorate of cocaine at the side of the septum, and allowing it to remain there five minutes, then taking the nippers and cutting through the septum. The patient felt no pain, and didn't know the septum was divided until he saw the blood running from the nostrils. He used steel forceps, cutting out a heart shaped piece. The plug gener-

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ally used is an ivory one, but he thought it much better to take an ordinary nipple, such as is used in an ordinary nursing bottle, and plug the nostril with it.

Dr. Lemen asked how to keep the nipple in position.

Dr. Dixon said by packing it with cotton or gutta-percha. There was no trouble in keeping it in position by sealing it over with collodion. There was no trouble in removing it and cleansing the parts. He left it in two days, and and then took it out and left it out.

Dr. Todd said that it was an extremely ingenious device that Dr. Dixon had suggested, and one that would be of advantage in many cases, much better than the solid plug. It is generally necessary to use a great deal of pressure with these plugs which is pretty certain to cause ulceration to a certain extent if sufficient to keep the septum in proper position. He had found difficulty after this operation upon the septum in some cases from curvature of the entire length of the septum, involving the bone, and it is a very serions matter to get away back there and correct it. He had generally been satisfied with the respiratory space given by simply removing the curvature of the deflected cartilage without going back to rectify the bony septum.

In order to see how very serious that operation is, he made a study of the skull in order to see what condition really existed. In his collection he has a skull in which there is a deviation of the bony septum to such an extent that the bone is absolutely in contact with the outer wall of the nasal passage on that side. The person must have had an accident, rupturing the cartilaginous septum, and that side of the nose must have been plugged up. The only operation which could be performed there with any favorable result would be to put in a very powerful forceps, and smash the bone, an operation which he would not care to perform, as there would be serious reaction, if not sloughing away of the septum. Of course cartilage we can treat with much less ceremony. The sight of that skull had been enough for him.

Dr. Homan asked whether there is any mechanical contrivance to prevent a syphilitic nose from falling in on account of necrosis of the nasal bones.

Dr. Todd answered that Hippocrates devoted a chapter to broken noses. He says the difficulty is to put in anything that will stay there and keep the bones in position.

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Dr. Mulhall referred to Dr. Dixon's use of cocaine. He said he had found this drug to be exceedingly useful, in diagnosis especially. In only one case had he seen cocaine intoxication. He applied a six per cent solution of cocaine in order to reduce a swelling of the nasal erectile tissue, so as to see and get more room to operate on a nasal polypus, and within three minutes he got the constitutional effects of cocaine. He became very white and went into a cold perspiration, and his pulse came down to 40. He gave the gentleman some brandy, and in the course of ten minutes he recovered his normal condition.

Dr. Todd read a paper on the Relations of the Iliac Arteries and the Inferior Vena Cava; a Study of their Valvular Action upon the Venous Current. (*Vide* September COURIER).

Dr. Homan asked if the vein always passes under the artery.

Dr. Todd said he had never seen a variation from it, and he had examined a good many bodies: there is sometimes a transposition of the vessels.

Dr. Homan asked, Does that relation hold true in animals?

Dr. Todd said that it does in the dog, and he thought in all other vertebrates, in mammals at least. It is stated as a matter fact that any very marked anatomical arrangement in the system, obtains in all the higher mammals. He had made dissections of a good many animals, birds and mammals and reptiles, and the structural arrangement is the same throughout the entire vertebrate kingdom. We don't expect to find any marked variations. In the human anatomy, this special arrangement is more needed because the natural position of man is erect during his active moments, whether sitting or standing up, consequently the column of blood needs more support in the human body than any other.

Dr. Fry thought this a very interesting point for study. For instance, if we could find some animals in which there was the first approach to this relation of the vessels, with no other provision for valvular action, it would be an additional arguument in favor of this theory.

VARICOCELE TRUSS.

Dr. Nelson had nothing to say directly on this point, but for several years a question had come into his mind with regard to the treatment of varicocele, as given in some of the books. Some of the older surgeons recommended a palliative treatment of

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varicocele by the application of a truss directly over the spermatic vessels; the statement being that the pressure of the pad of the truss upon these vessels supports the column of blood and relieves pressure upon the swollen and distorted veins of the scrotum. The last edition of Erichsen's work gives this statement: "The pressure of the pad of the truss upon the spermatic cord, as it issues from the external ring, will break the length of the column of blood in the veins and may thus be of service; but many patients cannot bear the irksome pressure of the instrument. Moreover, it must be remembered that it will at the same time obstruct the flow of blood, and in all probability do as much harm as good."

Evidently Erichsen does not recommend it, but he does mention it as a treatment that has been recommended by other surgeons before. It had always been a mystery to Dr. Nelson how pressure upon a tube, through which a current of blood or other liquid is flowing, can relieve pressure on the adjacent vessels, on the principle that it is supporting the part that is above the point where the pressure is made. The reasoning had always seemed to him to be absurd.

Dr. Mulhall asked if there is any more pressure on the left iliac vein than on the right.

Dr. Todd thought that very difficult to decide. The left iliac lies more under the artery at one point. In regard to the objection raised by Dr. Nelson, that same objection struck him, but he explained it in the experiment made made upon the human cadaver. He found that on presing the artery with his syringe, there was an increased flow at that point.

Dr. Nelson observed that Dr. Todd's experiment did not refer to constant pressure, such as would be made in case of varicocele.

Dr. Fry remarked that there might be some revelation of truth by examining human bodies in the early stages of the development and later on, in regard to the relative amount of pressure made upon the common iliac veins by the common iliac arteries of the fetus, and also the difference of pressure of the inferior vena cava of the fetus. He thought in the fetus there would be some pressure by the column of blood in the inferior vena cava, because there is no inspiratory effort of the chest to encourage the flow of the blood to the heart, and it would seem that there would be more pressure. This would be an important point, to determine if there would be no provision for the additional pressure in the fetal stages.

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Dr. Todd asked if that might not be atoned for by the foramen ovale allowing the blood to flow more readily into the general circulation.

Dr. Fry said that was a question. Another question is suggested by the presence of a valve at the opening of the inferior vena cava. In what animal does that value exist? It is an anomaly sometimes seen in the human subject. At the St. Louis College there is a specimen of that kind, found in a cadaver.

Dr. Todd recalled the fact that some of the inferior animals have muscles extending on the great veins some little distance, so that the veins, also, have the power of closing as the heart contracts, and so there would actually be a valve formed by those muscles, acting exactly like the valves which the doctor had found in the specimen to which he referred; as Dr, Fry has suggested, it would be very interesting to find an animal having a provision for such valves.

ST. LOUIS MEDICAL SOCIETY.

Stated Meeting, April 17, 1886. Dr. E. H. Gregory in the Chair.

CYST OF BROAD LIGAMENT.

Dr. Lutz exhibited a cyst of the broad ligament, successfully removed from a patient, in whom it had gradually been enlarging for sixteen years. The contents of the cyst consisted of seven gallons of dark grumous material abounding in cholesterine. The parent cyst had on its inner surface several smaller cysts, and presented the peculiar pink appearance, said to be characteristic of the tumors of the broad ligament.

INTUSSUSCEPTION — HERNIA.

Dr. Gregory reported that he had since seen the child, whom he had relieved of acute intussusception by massage and the inverted position, and that the child has remained perfectly well.

Dr. Meisenbach reported a case of strangulated hernia in a man aged sixty years, reduced by the same method employed by the President.

The patient was suspended head downward, from the shoulders

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of an assistant, and relieved by taxis and deep massage. On a second occasion the same treatment employed without anesthesia during one hour failed to reduce the hernia. The doctor left the patient, prepared on his return to operate, but to his surprise he found the hernia reduced. He thought that the deep and firm massage had induced peristalsis, which, in his absence, had completed his incomplete reduction of the gut. He understood by deep massage, a powerful kneading of the abdomen, touching even the vertebral column.

Dr. Gregory thought a mistake had been made in not having administered chloroform.

Dr. Wesseler spoke of a popular delusion concerning hernia. A patient of his had been told that if he placed a brass ring over his penis, and tied a string to it, he would, by pulling, be able to reduce the hernia. He tried the experiment, which resulted in such great tumefaction of the penis, that only by the skilful use of a jeweller's saw and pincers the ring was removed.

Drs. Pollak and *Gregory* were reminded of cases wherein taxis, chloroform, warm baths, had failed to reduce hernias at the time, but were agreeably surprised, on visiting their patients next day, to find the hernia reduced.

Dr. Hulbert mentioned a case of apparent femoral hernia, at present under his care, wherein, though taxis had failed, he was delaying operation because there existed no pain, no redness, no constipation.

Dr. Gregory thought such delay proper.

Dr. Hill remarked that it was sometimes impossible to discover the tumor. He mentioned a case, wherein the only indications were great pain in the epididymis and epigastrium. Stercoraceous vomiting ensued on the third day. An operation resulted fatally. A rupture was found in the internal abdominal ring.

Dr. Mudd thought that the hernia must have been congenital in its original form.

Dr. Gregory was asked a number of questions about hernia, and replied as follows: Distinction must be made between chronic and acute hernias. You can wait days in the chronic, whereas the limit for action in acute cases must be measured in hours. Where the pain in acute cases is very severe, it signifies the nipping of the gut to be tight, and as such agonizing pain soon induces collapse, the question of treatment must be decided at once; for,

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in many such cases one hour may decide the case against the patient. Urgent symptoms require urgent treatment, and the reverse holds good. The patient should be told before being chloroformed that he may awake to find that an operation had been performed. Should taxis have failed, without urgent symptoms, perfect quiet in the recumbent attitude, or leeching, with opium, should inflammatory signs appear, are to be advised. Dr. Gregory thought that chloroform, the inverted position, with deep massage in all directions were not sufficiently appreciated by the profession at large, while its younger element especially was too ready for a laparotomy. He thought deep massage might often have saved the necessity of spaying women.

Dr. Mudd remarked that the suggestion of Carl Nicolaus, that of the semi-prone position, with the hips elevated and shoulders depressed, in such a manner that the traction of the intestines was directly opposite the rupture, was a very good one. One should also not forget to examine the urine in cases of concealed suspected acute hernias, since in such conditons albumen would be found.

PLACENTA PREVIA.

Dr. Hulbert reported a case of placenta previa in which fatal shock and hemorrhage followed the manual detachment of the placenta, and successful delivery of the child. The uterus exhibited no trace of the connective tissue ring at the os, which was slightly ruptured by the manipulation.

HYBRID.

Dr. Funkhouser exhibited a specimen of an embryo five days old, the result of the union of a rooster and a duck. This was the only fertile specimen of sixteen such eggs hatched in an incubator. The doctor thought his experiment tended to upset prevailing ideas about species, general orders and classes. All sources of error with regard to the roosters and ducks had been carefully avoided. The duck, if kept with a rooster, will allow his approaches. He regarded it as an extraordinary event, that a member of the order of swimmers being crossed with of the the order of scratchers, should have produced a living result, thus jumping over, not only species, but also further. The duck and the rooster are of the same class, but belong to different orders.

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Stated meeting, April 24, 1886.

Lacerated Cervix.

Dr. Hulbert presented the uterus spoken of at the last meeting.

Dr. Wm. Johnston said the uterus had not contracted properly after delivery, because the circular fibres were torn through.

Dr. Hulbert replied that he had made it a practice, to examine women immediately after delivery and on recovery, and he estimated that in at least fifty per cent the cervix was lacerated, but that this condition had no effect on hindering firm and speedy uterine contraction.

Dr. Pollak objected to the term cervix, as applied to the pregnant uterus at full term, inasmuch as at such a period no cervix existed, it being gradually merged into the body of the uterus.

Insane Delusions.

Dr. Bremer related cases of insanity, to illustrate the fact that the spirit of the times is generally reflected in the thoughts and actions of the insane. Many who would formerly answer imaginary voices at random, now use an imaginary telephone. The riots in East St. Louis had proved the exciting cause of insanity in two cases, and in both existed the idea of being persecuted by strikers, though they had been quite unconnected personally with the riots. Another who became suddenly insane during an attack of acute rheumatic fever, had conceived and addressed a long letter to a daily paper setting forth his plans of meeting all difficulties with the strikers. Another, a skilful mechanic, invented a trap with which to ensnare Gould. In only one case had the doctor seen ancient events the ground work of a delusion. This patient, a teacher of Greek and Latin, and a worker in mythology, imagined himself Jupiter and the universe, and he had given to each of numerous moles existing on his body the name of a star or planet.

Dr. Green discussed the effect of malaria, in producing what might readily be assumed as insanity. He had treated two such cases, pronounced by their friends to be insane but not recognized as such by himself, with antimalarial remedies. In both permanent recovery ensued.

Dr. Washington mentioned a case of mild insanity which disappeared when he had successfully performed perineorrhaphy, for an old laceration.

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Dr. Barclay remarked with reference to the telephone delusion, that when hallucinations of hearing occurred in the insane, very frequently a defect in the transmitting mechanism of the hearing existed, and mentioned cases in his experience, where a cure of the ear disease had removed the aural hallucination.

Dr. Bremer thought the cure of delusions by an aurist or gynecologist must be extremely rare, and that the latter specialist sometimes aggravated the mental condition by treating the uterus with the idea that the insanity depended upon uterine disease.

Dr. Hughes insisted strongly on the important point, so often neglected, of differentiating between the predisposing and final exciting causes of insanity. In nearly every case there are brain troubles which have sapped the nutrition of the brain, which have paved the way for days or weeks or months or years, so that it needed but some sudden misfortune or other trial, to complete the mental wreck; and this last straw is written down as the cause of the insanity, whereas the previous conditions are the more important causes. The public does not hear of the injuries to the brain which have preceded the final cause. It is highly improbable that one cause, no matter how severe can cause insanity in the individual whose brain up to that moment was perfectly healthy. Insanity is nearly always the result of causes which gradually undermine the nutrition of the nerve centres, not of one cause which suddenly acts. It is for this reason, that frequently, that only after a tedious and pains-taking search, does the alienist get at all at the facts. The friends and family physician mention only the final cause. It was very seldom the case that in the aural hallucinations of the insane, ear disease was discovered, and he had examined many to determine this point. The difference between such existing in sane and insane patients, is the possession which the hallucination takes of the judgment.

Dr. Williams knew of several cases, where noises in the ears had produced insanity, where foreign bodies, or the delusion that a foreign body was in the ear, had the same effect of mental aberration. He also had seen several cases, where the use of belladonna in the eyes had produced insanity in persons previously mentally sound.

Stated Meeting May 1, DR. GREGORY in the chair.

CARCINOMA OF THE TONGUE AND PALATE.

Dr. Mulhall reported a case of carcinoma involving the right

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base of the tongue and the adjacent soft palate, in which he had removed the diseased parts by the Kocher method, that is, making an incision from the hyoid bone to the angle of the jaw. The patient was nourished the first few days through an esophageal tube and rapidly recovered. A year afterwards he was again seen. There was thickening of the inferior maxilla on the operated side, but no signs of recurrence in the stump of the tongue; speech was intelligible. There was found, however, complete paralysis of the facial and abducens nerves on the operated side. As these nerves take their origin from about the same cerebral centre, Dr. Mulhall expressed the opinion that there existed an extension of the cancerous process, by way of the lymphatics to that centre.

The patient died five months later with gradual asthenia, but as far as could be learned (the patient living in central Kansas) without additional cerebral symptoms. The doctors thought the result interesting for two reasons: first, to show the justifiability of the operation, the patient dying seventeen months later without recurrence of the disease in the mouth; second, as showing a cerebral termination of the case. He thought the Kocher method by far the best for removing malignant growths at the base of the tongue.

Dr. Bremer stated that meningeal complications were not uncommon with cancer of the tongue, and mentioned a case of insanity following such a course. Whether in Dr. Mulhall's case there was a local meningitis simply, or cancer of the brain it was not possible to determine without a post-mortem.

Dr. Wm. Johnston tried to revive the old, old discussion as to the local or constitutional origin of cancer. He believed in the latter theory.

Dr. H. H. Mudd reported a case of carcinoma involving the left base of the tongue through its entire thickness, in a man aged 34. The submaxillary gland had four times its natural volume, and a gland at the angle was also enlarged. He first tied both lingual arteries, after which he made an incision according to the Kocher method, and enucleated the enlarged submaxillary and lymphatic glands. A galvano-caustic loop was then passed in front of the epiglottis, and as close to the hyoid bone as possible, but on removal of the growth it was found that the wire had burned its way through the diseased portion. The doctor completed the removal of the whole tongue with scissors, applied closely to the hyoid

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bone. The greatest hemorrhage occurred at the time that the wire carrying needle was passed through near the glosso-epiglottic fold, and not from any work with scissors. He, therefore, thought that, the lingual arteries being tied, it would have been better to have completed the operation without the use of the galvano-caustic loop. The patient, operated on one week ago, was now doing well, all his former severe pain having disappeared.

Dr. Mulhall thought it difficult to adjust a loop accurately, as it had been in his own case, so as to include all the diseased base, and an unnecessary precaution when the linguals had been previously tied.

Dr. Mudd, who had assisted Dr. Mulhall in the latter's case, thought that the difficulty in adjusting the loop arose from an insufficient opening, through which to work. In his own case he had easy access, but had passed the needle too high up instead of going lower, close to the bone, but thought that the loop could be carried close to the hyoid, and the tongue removed just as completely as with the scissors.

CONVULSIONS IN PREGNANCY.

Dr. McPheeters reported a case of violent convulsions in a woman at the sixth month of pregnancy. Edema of the feet and general anasara led to an examination of the urine which was found loaded with albumen. There were violent abdominal pains in the hypochrondrium, with great headache and a flushed face. The doctor bled her a full quart with complete relief to her pain, nor has there since been recurrence of the convulsions, which the doctor considered uremic. He was now addressing remedies to the relief of the kidneys. He believed in venesection in such cases, as well as those which could be more properly called puerperal convulsions.

CANCER OF THE MALE BREAST.

Dr. E. H. Gregory cordially endorsed the method pursued by Dr. McPheeters. He, at the same time, reported a case of cancer of the male breast, which he had removed. The man died two weeks afterwards with brain complication, and he did not doubt that in his case, as well as that of Dr. Mulhall, cancerous dissemination to the brain had occurred.

PUERPERAL CONVULSIONS.

Dr. Shaw was called in to see a woman in labor, by a midwife

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who demanded his assistance, because the patient had had a convulsion. Finding the head of a child well down in the pelvis, he at once delivered it with forceps. His attention being directed from the woman, by the condition of the child, which demanded resuscitation, he did not discover for twenty minutes that there existed another fetus. A digital examination failed to reach the womb, so that the doctor did not at once discover it to be a case of cross birth. The woman's pulse was rapid and very feeble. Having waited an hour or two for labor pains, and the patient having gone into convulsions, the doctor at once turned and delivered the second child. In such a case the doctor thought venesection inadmissible—on the contrary stimulants were indicated, the patient being an anemic young woman.

Dr. Papin criticized in strongly unfavorable terms the course pursued by Dr. Shaw. He thought it careless that an accoucheur in a case of twins, should not at once discover the presentation in the second child, and, in such a case as related by Dr. Shaw, where death was impending, that having discovered it to be an unusual presentation, it was his duty at once to introduce his hand and deliver the second child. He thought it "very conservative midwifery" to have waited an hour or two, when nature was already exhausted and her efforts inefficient.

Dr. Shaw replied that his efforts at saving the life of the child had so occupied him that he had not at once examined the mother. Abdominal palpation then made it pretty certain to him that the second fetus presented crosswise. When he did make this discovery she had not had a pain; she was at perfect rest. From these two facts and the knowledge of a previous convulsion, Dr. Shaw thought that to introduce his hand into the womb would at once produce a convulsion. He could not foresee that another convulsion was to ensue. He thought it better midwifery to allow nature to gather her forces, aided by stimulants. Foreseeing, however, the possibility of another convulsion, he had sent for Dr. Coles, preferring not to administer an anesthetic, turn and deliver the child with only a midwife present. As, however, the convulsion occurred before the arrival of Dr. Coles, he at once pursued the course described. The patient never recovered consciousness.

Large Lipoma.

Dr. H. H. Mudd presented a specimen of a lipoma removed post

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mortem from a male. Its interesting features were its enormous size for many years, and the fact that during the last few weeks of his life it had undergone an ulcerative process by which it had been considerably reduced in size, and from which the patient died. Like most lipomas situated in the side of the neck, it was not entirely encapsulated. The patient was small in stature, quite slender and thin. Dr. Mudd thought lipoma quite as likely to occur in spare persons, if not more so, as in the fleshy. The patient had been under Dr. Mudd's observation two years.

ARSENIC IN SKIN DISEASES.—The editor of the *Journal of Cutaneous and Venereal Diseases* is desirous of ascertaining to what extent arsenic is used by American physicians in the treatment of skin diseases, and also the results of their experience as to its therapeutical value.

Information upon the following points is requested of every physician who reads this:

Are you in the habit of employing arsenic, *generally*, in the treatment of skin diseases?

In what diseases of the skin have you found arsenic of superior value to other remedies?

What ill effects, if any, have you observed from its use?

What preparation of the drug do you prefer, and in what doses do you employ it?

Address, Editor of *Journal of Cutaneous and Venereal Diseases*, 66 West 40th Street, New York.

We trust that our readers will respond fully to the above interrogations. [ED. COURIER.

THE FOOCHOW MISSION HOSPITAL, under the charge of Dr. H. T. Whitney and three native assistants during the year 1885, cared for 604 patients, of whom 334 were cured. In the dispensary connected with the hospital 3,260 were treated. There were 205 teeth extracted, and 220 surgical operations made. The total expense of the hospital, including wages and medical supplies, was only $746.46. The religious work included daily morning prayers in the hospital and a short service on Thursday and Sunday afternoons. In the dispensary a regular preaching service is held previous to dispensing medicines.

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COMMUNICATIONS.

IS IT TRUE?

GARRISON, MO., JUNE 28, 1886.

EDITOR COURIER:—In your June issue I see in the report of St. Louis Obstetrical and Gynecological Society, stated meeting of March 18, the following language as used by Dr. Barret:

"The country practitioner does not know anything about pessaries."

Now, he must have little faith in the *ability* of his "brother" of the rural practice, or else he knows very little about him.

"We" study what is taught by our leading gynecologists the same as our city brother, and we get a great deal of practical knowledge through reports of societies, etc., in the medical journals.

Now, we are led to believe, from the above referred to and other similar discussions, that this "meddlesome gynecology" is practised more in the "cities" than it is in the "country."

You do not, perhaps, know, Brother Barret, the number of "such cases" we "country practitioners" get that originate in the city. Patients go to get treated, and, after awhile, come home apparently cured, with a pessary left *in situ*, which may be left for months before calling the country practitioner in to complete the cure (?) begun by the city physician.

Now, we believe the country doctor has as much right, and it is his imperative duty to know as much about female diseases as any other "general practitioner," and we further believe that there is a goodly number that do.

We are, of course, limited in our facilities a great deal more than those in the cities, and we are, therefore, called upon to resort to a great many more ways and means of accomplishing the desired end. For instance, we may not have any pessaries on hand, and no "toys for boys," either. Now, we may have a prolapsus to relieve, or an anteversion or retroversion. We must relieve it in some way. How will we go about it? We will send to the drug store (if there is

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any) and order one made; if there is no drug store, we will have to make one ourselves. (We would like to see our "city cousins" make one!) We possess ourselves of some powdered elm-bark, gum acacia and some disinfectant, iodoform for instance. After triturating thoroughly these ingredients, and perhaps medicating them some more, we moisten enough to make a thick dough and mould in the desired shape, then dry.

Now we are ready to accomplish something we were not able to do with many other other kind of so called pessaries, to-wit, medicate at the same time we relieve the luxation. Neither do we introduce any foreign body that will remain for months or years.

It is true that the above will have to be renewed from time to time, but with proper care and not too long neglect before removal we generally accomplish our wishes.

We do not hear of many, if any, such cases reported from the country as referred to in the COURIER, and the reason must be that the country physician does not feel as free to report such cases, if he has any, or, for that matter, any cases at all, coming under his observation, as city physicians. Thus it must be that Dr. Barret concludes that we do not know anything about pessaries. And perhaps most of his improperly-used-pessary cases may come from the country.

Yours,

COUNTRY PRACTITIONER.

We trust that not only this correspondent, but all the many "country practitioners" who read the COURIER, will not only "feel perfectly free" to report cases of interest and the results of their experience in the pages of the COURIER, but will feel it a duty to the profession to do so. We as gladly welcome communications from our friends in the country, as from those in the city. [ED. COURIER.

ANTISEPTIC VAGINAL INJECTIONS.

STANBERY, MO., July 13, 1886.

The perusal of the article by James M. Swetnam, M. D., of Omaha, Neb., on "Antiseptic Vaginal Injections in Parturient Women" has a tendency to set one to thinking. And in adding my testimony in favor of the opinion of that gentleman, I have this

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to say: that I never have used antiseptic or even aseptic vaginal douches in parturient females; neither have I had any of those grave troubles to contend with, said to be due to the absorption of septic materials.

I have delivered with the forceps a few times in my practice, which covers a period of sixteen years, and I have not, in a single instance, taken the so-called necessary antiseptic precautions after the use of instruments, in natural or premature labor, and these not being attended with any dire consequences that we are led to believe would naturally follow this non-meddling procedure, induces me to accept it as evidence, to say the least, in favor of conservatism in obstetric practice, however limited my experience has been.

I do not wish to be understood as condemning the injections in hospital practice, or even in the private practice of large cities, but I *do* question the philosophy of the procedure.

The fact that the universe is composed of atoms teaches us not to ignore small things, and illustrative of this, I will mention the very wise old lady who having been engaged in the practice of midwifery for half a century; and not being able even to comprehend the meaning of the term antiseptic, much less discourse learnedly on the subject, will tell us that she has never had any difficulty in those cases. She simply does not meddle with them because her scientific acquirements are so limited that she lets nature severely alone.

If, in the physiological process of parturition, there is developed any pathological condition, ten to one we have made it so by untimely interference, by undertaking to do too much. 'Twould be better to leave the whole process to nature alone than to attempt to render assistance in a matter about which there is so much doubt and discussion.

According to the prevailing opinion as regards septicemia, we are led to employ vaginal douches with a view of destroying the micro-organisms or preventing these little terrors from gaining entrance to the sacred precincts of the female pelvic organs. Now, if the female pelvis is a favorite resort for a certain microbe, why do we not have more of these cases, especially where a sepsis is considered as one of the lost arts?

Again, allow me to ask how can it be possible for these micro-organisms to find their way into the vagina and uterus against the flow of the lochia, one drop of which would suspend a thousand of these microbes.

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Of course, some one would readily answer me by saying that the ciliated epithelium would sweep them upward in the same manner that the spermatozoa are carried onward and upward to their destination; to which I would further add, who ever examined the cilia immediately after parturition, and found that the function of the cilia was unchanged. Might I not assert that immediately and for days after this ciliary action was reversed or remained in a state of quiescence? However, I do make the assertion and upon it I will erect an hypothesis, thus throwing the burden of proof on those who feel disposed to take issue with me. [!]

Respectfully,

E. Houston, M. D.

HOUR GLASS CONTRACTION.

Winfield, Ark., June 19, 1886.

Editor Courier.—I wish to ask the readers of your journal, in regard to the above condition of the uterus. Does true hour-glass contraction, at full term, occur? During ten years steady practice in the country, I have found eight cases, at full term, of what is called hour-glass contraction. In all of them, the placenta was adherent to the fundus, and had to be removed by passing my hand up through the constricted portion of the uterine walls, and in all these cases the lower portion of the uterus, (i. e. from the band to the outer os,) was soft and dilated, but the band-like constriction was so firm that it has taken me an hour to pass three fingers through to the placenta. All of these patients flooded more or less, and as there is, or has been no contraction of the outer os, no dilated chamber between the inner and outer os, I can not see why we should call it by any such name.

I saw the best sample three years ago, in the uterus, after the woman had aborted at three and one-half months. When I saw her, the fetus had already been expelled and she was flooding considerably. I introduced my index finger through the outer os with great difficulty, and lo, it found an empty chamber just inside, and then on to the contracted portion, and I could only feel the placenta, still high up, with great difficulty, and had ot remove it

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with the dull curette. So, I wish to learn if any of the readers of the Courier have seen a true case of hour-glass contraction in the uterus at full term. Yours Respectfully,

Chever Bevill.

PARTURITION—UTERINE FIBROID.

Fort Smith, Ark., July 3, 1886.

Editor Courier.—On the 23rd of May last, Dr. H. called at my office and requested a consultation, stating that he had officiated in the confinement of Mrs. R., colored, aged 27, multipara, last previous child now over two years old. He informed me that he had delivered her of a still-born seven-months child, which was deformed, having talipes varus of both feet, and a deformity of both hands. His diagnosis was twin pregnancy, the other child still in the uterus, which had ceased to contract. I repaired with the doctor to the house, and found what was supposed to be the remaining child's head in the left iliac region, but the patient was so hyperesthetic, both over the abdomen and in the vagina, that a satisfactory examination could not be obtained. Chloroform was deemed advisable, and was administered. After the patient was sufficiently anesthetized, and after a thorough antiseptic ablution of my hand and arm, by a slight effort, I succeeded in overcoming the cervix contraction, and, passing my hand into the uterus, found it empty. Then suspecting the trouble, with the other hand I manipulated the abdomen, and found what was mistaken for the child's head, and about the size of my double fist, a sub-peritoneal fibroid attached to the fundus uteri. Dr. H. was called to the case without any previous history, and without ever having attended the patient before. Hence his dilemma. W. W. Bailey, M. D.

Venereal Disease Dispensary.—It is stated that an infirmary is to be established in New York City for the free treatment of persons suffering from venereal disease, the object being a practical movement toward the suppression and diminution of these diseases. The names of Drs. T. G. Thomas, A. L. Loomis and other well-known gentlemen are mentioned as being among the directors.

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SELECTIONS.

DIAGNOSIS OF CONSUMPTION BY MEANS OF THE MICROSCOPE, WITH REFERENCE TO LIFE INSURANCE.[1]

By Ephriam Cutter, M. D., New York.

Consumption has long been regarded as a deceptive disease in which the usual signs furnished by auscultation and percussion may prove fallacious. So it has happened that some cases have proved to be consumptive that were regarded as not consumptive, and vice versa. Such confusion must add to the risks in life insurance. If it can be shown that there are any means of diagnosticating consumption in these doubtful cases when the usual physical signs do not clearly establish a diagnosis, it will certainly be advantageous to Life Insurance Companies by lessening their risks from incorrect diagnoses.

The object of this paper is to make known that there are means of diagnosticating consumption any time within one year *before* the physical signs of lung necrosis and breaking down appear—that is what may be called the pretubercular state.

[He refers here to a work by Dr. J. H. Salisbury soon to be issued, in which the following points are set forth:]

1. Consumption of the lungs is characterized by a definite morphology of the blood, which, taken in account with the other physical and rational signs is characteristic of the disease.

2. This morphology differs from that of healthy blood, of syphilitic, of rheumatic blood, etc., etc., though it is possible for these morphologies to be present together, two or more in combination.

3. For any time within a year previous to the necrosis or breaking down of the lungs, this morphology of consumptive blood is found, so that

1. Read before the New York Medico-Legal Society, April 21, 1886.

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4. In a doubtful case where a medical examiner for life insurance, for example, finds it to be on the borderland of health and disease, the morphology of consumptive blood comes in to settle at once the diagnosis and clearly define the line of action.

5. This is regarded as of value in life insurance, as no company wants to insure the lives of consumptives nor on the other hand to refuse a risk, other things being equal, for a non-consumptive.

6. The importance of these statements as making out an advance in medical knowledge may well justify the presentation in a simple, plain manner, so that those who choose to avail themselves of them may do so in the most practical, common sense way, and I crave your indulgence as I try to set forth the use of the new physical sign of microscopic inspection in the diagnosis of consumption.

Morphology of Healthy Blood.

That of a healthy nursing infant with a healthy mother is the type. "To obtain the blood a clean puncture or cut is made in any part of the body desired, the surface being perfectly cleaned." The capillary blood is the one studied, not arterial nor venous. "The blood at once is transferred to a slide, then quickly covered with thin glass and placed under the microscope with $\frac{1}{6}$ inch objective and one inch eye-piece." At the present day a good enough microscope can be procured for this purpose for fifty dollars, ($50.00) but the definition should be clear and achromatic. "By a little experience the blood may be under observation in one second from the time it leaves the stream."

Features of Healthy Blood.

1. Colored corpuscles.
2. Colorless corpuscles.
3. Serum.
4. Fibrine filaments.
5. Foreign bodies accidentally present.

1. Colored Corpuscles,

in healthy blood, appear biconcave with edges well rounded out, clear, distinct and well defined; their color is a deep, lustrous, ruby red, appreciable fully only by actual observation; their size varies in the same individual, average $\frac{1}{3400}$ of an inch; uniformly distributed through the field, sometimes in rouleaux; number in the field varies with method of manipulation. If the drop of blood is large for the cover, they will be crowded and numerous; if small they will be fewer; they are sometimes nucleated.

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PASSIVE PHYSICAL MOVEMENTS OF RED BLOOD CORPUSCLES.

These are caused by clotting—by capillarity of the space between the slide and cover—by evaporation and drying. They will move in masses swayed to and fro like a collection of old bottle corks floating on a stream of water. In themselves they are very passive and differ in this respect very much from white blood corpuscles. They are not usually regarded as having ameboid movements, but to the writer they have; as occasionally he has seen them move with the independence of the white blood corpuscles, in rouleaux or evenly distributed about the field, their strong ruby color, number, size and clear cut outlines are the features which characterize health.

2. COLORLESS CORPUSCLES IN HEALTHY BLOOD.

Features: color, number, size, shape, ameboid movements, and sticky qualities.

1. *Color*—Their color is white, and they are rightly named. This is shown with beauty in the photographic illustrations. An objective that does not bring out their true color is not a good one for blood study.

2. *Number*—This varies in health relative to the red, but one to 300 red is about the proportion. In consumption they are more numerous.

4. *Size*—Varies less in health than in disease. Rarely are they smaller than the red; usually they are larger. Perhaps they may be rated at $\frac{1}{2200}$ inch on an average. In consumption they are large and vary more.

4. *Shape*—Is usually globular but varies constantly; sometimes they are triangular, oblong, obovoid. They are surrounded with a deeply cut and irregular margin, forming objects of weird, bizarre and awry characters difficult to describe or imagine. Indeed the grotesque changes of outline go beyond the imagination. Sometimes they will push out long lines of substance like an arm or handle to a pan. Sometimes they will project themselves like a leech, and change their place. Indeed these changes are so wonderful as to demand a separate paragraph.

5. Ameboid movements, (ameba-change)—The colorless corpuscles move among the red like policemen in a crowd of people. They break through the fibrine filaments; they push the red corpuscles out of the way as with authority; they go over or under the

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red corpuscles and pursue their straight forward movements like a determined officer. But they can do more than any such functionary, for they can divide themselves up into parts—separate to considerable distances—travel on and "apparently" reunite their separate segments and move on again whenever they will be ready to go. No law seems to govern their movements except independent volition, if such a term can be applied to such minute bodies. While these movements are being made, with an exceptionally good objective the granular contents of the corpuscles may be seen whirling and pushing along in currents and vortices of visual violence and force.

6. On the other hand, white blood corpuscles present a phase directly opposite to that just described: when not undergoing movements, they stick fast to the slide as if they meant to move only when ready to do so. While the colored are rushing helplessly along in swift torrents the colorless corpuscles will be seen underneath still and quietly resting and resisting the charges and onsets of the scudding movements over them. They split the stream like a rock in the rapids of a river; they will also stick in the vacuoles of drying blood. Certainly this sticking power compared with the ameboid movements are two remarkable features to occur in the same body.

3. *Serum.* When coagulation has become thoroughly established in the specimen of blood the red corpuscles contract together leaving inter-spaces which in health should be clear and clean, except the serum, white corpuscles, and the filaments of fibrine, which in health are faint and seen with difficulty.

Although to inspection, the serum is clear and diaphanous, is is really one of the most complex fluids of the body. The chemical elements embrace all those found in solution in the system and are invisible, save fibrin, which may be regarded as an insoluble form of albumen. It is on the clearness and cleanness of the serum that the diagnosis of healthy blood mainly turns. It is very likely possible to discover some diseased elements in an otherwise apparently healthy person's blood. In such a case the significance would be void; no one physical sign of disease taken alone stands out against, controls or "orients," so to speak, all the other signs when healthy. The writer has seen a case of crepitant rales in the lungs of an otherwise healthy person, but that single sign did not decide that consumption was present. The comparison with the rational excludes

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the diagnosis. People exist in a slightly impaired state of health, and have evidences of disease in the blood while systemically, it is latent as in rheumatism and syphilis. The subject is so new as to have many points yet to settle; however, no subject is so old as to have no unsettled points. Still with these limitations, it may be said that in the great majority of cases the serum of the healthy blood is clear of dirt like debris, spots and masses, or if present the quantity is limited.

4. *Fibrine Filaments.* As has been observed, these naturally exist in the blood, but they are very faint and delicate, and elude observations unless specially conducted with great care and under favorable auspices. The reverse of this is true in some diseases. They form a striking and impressive feature in the field and need but little pains to be seen.

5. *Foreign Substances* accidentally present in the blood of health. These come from the skin, the slide, cover and instrument of puncture as dirt or "matter out of place." This dirt may be to a great extent eliminated by careful washing. Dirt furnishes material enough for a volume. It includes all dust and debris arising from the friction of various bodies and surfaces that come in contact in the wear and tear of life. Air teems with them. Dirt includes smoke, clouds of dust, sweepings, organized substances, as fibres of cotton and wool, linen and silk from clothing, feathers from animals and beds, straw, wood and fibres, leather, salts of excretions and secretions, starch grains of all kinds, pollen grains, hairs of plants, spores, cryptogamic plants, algæ, fungi, mosses, lichens, ferns, vegetations of fermentation, putrefaction and decay, fragments of inorganic bodies in impalpable powder, earths, insects, dead epithelia, etc., etc. It is a long work to understand the various substances that enter into dirt. It is a micrographic field that is exhaustless, always present, most penetrating and when overlooked, most fruitful of error. As the importance of having a clean slide and cover is an injunction that will bear repetition, so also the eye pieces and objectives must be clean. It is a good plan to study beforehand the field of the microscope without any objects in order to know how clean they really are.

Sometimes the eye piece will be dotted with spots that cannot be wiped away; simply rotating the eye piece will reveal these blemishes by showing them in motion, which could not be when the slide is still. Fat is another thing which may be found in healthy

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blood and mistaken for diseased conditions. Epithelia from the skin and the lining of blood vessels, bubbles of air in globar and other shapes, are found in healthy blood. To recapitulate: In healthy blood there should be good color, clean and plump outlines, very faiat fibrin filaments, clear interspaces, and accidentally, fat epithelia, dirt and epidermal vegetations.

Morphologies of Diseased Blood.

In the work above quoted as published in 1868, allusion was made to the diseased appearances in consumption, anemia, rheumatism, carbuncle, variola, vaccinia, remittent fever, typhoid fever, and in other places syphilis, malaria, and erysipelas. These quotations show the broad scope of the researches, and that they are not mere haphazard observations. We have not time to allude to more than the

Morphology of Consumptive Blood.

1. Red corpuscles, generally massed and sticky.
2. Colorless corpuscles, enlarged.
3. Serum presents
4. Fibrine filaments, large, dense, strong and
5. Foreign substances; *a* abnormal, vinegar yeast; *b* accidental.

These elements in consumpsive blood taken in connection with the rational signs constitute the diagnostic evidence of tuberculous disease and what is here termed a new sign of the

Pretubercular State.

1. Red corpuscles are diminished in number, not uniformly distributed in the field of the microscope, are strongly clotted and massed together, edges not well defined, not well rounded out, flattened—not clean cut, sticky, pasty, flabby; they form themselves into regularly rounded masses rather than rouleaux. The rouleaux may be seen partially formed; color is a pale, yellowish red or sickly look, as the countenance of an ordinary consumptive looks to the naked eye as compared with a robust healthy person. Number of red corpuscles less in health, and sometimes nucleated.

It should be remembered that the red blood corpuscles are very sensitive to exercises that fatigue the body or mind. A single night of overwork has been known to diminish their number and brilliancy in health.

2. White corpuscles, color a dirty white; sometimes the red are

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so bleached and the white so dark that they cannot be distinguished by their color. Size varies more than in health; sometimes aggregate themselves in masses and appear like foreign bodies, number decidedly more than in health. Shape varies as in health; they are so distended by the changes (growths), going on inside, that they often burst and discharge their contents to form spore masses. The white corpuscles deserve a separate and careful study in all complaints as affording a pasture ground for the feeding of chronic diseases, as in syphilis for example. Rational signs remove the chances of error.

3. Serum constantly shows morbid elements—consumptive. Its spaces look as if filled with dirty debris in marked contrast with the clearness and cleanness of the same space in healthy blood. These objects in the serum are regarded as vinegar yeast developed in the blood.

4. *Fibrine Filaments* are always present in consumptive blood —are numerous, large, coarse, distinct, long and fill the field with a beautiful net work which presents different angles in different directions. Their strength in clotting is one of the causes of the masses and huddles of the red corpuscles alluded to. This is also found in rheumatic blood, but the rational signs would exclude rheumatism, though it is not impossible to have both together.

Foreign Abnormal Substances.—Spores (*a*) single of vinegar yeast; (*b*) spores of vinegar massed in collects. In bad cases they are very abundant and large enough to fill the field; the forms vary as might be expected under the physical conditions found in living blood: viz., swift motions—friction with themselves and the blood elements in the narrow and crooked walls of the blood vessels. Accordingly they are found flattened, rolled, twisted, torn into irregular divisions, broken up into small masses, divided, linear, and filamentous. It is somewhat important not to confound them with white corpuscles whose airy, fantastic and impressive changes can imitate almost anything.

The abnormal appearances described are not found always together in the same specimen, and to the neophyte they may not appear at first sight. Time, patience and study will make the matter clearer. Those who follow out this line of research are respectfully requested to follow:

1. The method of collection, which is to take the blood direct from the blood stream.

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2. The best kind of microscope and illumination.

3. Be sure to take a decidedly tuberculous case, and then, with some experience, these cases can be distinguisned.—*Medico Legal Journ.*, June, '85.

NOTES AND ITEMS.

Anesthetics in Childbirth from a Religious Point of View. —[The following communication from Dr. M. Mielziner, to *The American Israelite*, has been sent us with a request for an expression of opinion as to the views advanced.

While in no way sympathizing with the idea that the Scriptures are to be regarded as simply "a sublime allegorical legend," we have never shared the opinion that the words, "in sorrow thou shalt bring forth children," are to be regarded as mandatory. The argument from analogy with regard to the other words, "in the sweat of thy face shalt thou eat bread," is apropos, and the opinion stated by Dr. Mielziner in regard to the main question under consideration, is that which we have always held and taught and in accordance with which we have practised. — Ed. Courier.]

A prominent physician of this city, lately requested me to express my opinion as to whether there were any religious objections to the application of anesthetics during delivery. The reason for the request was that ladies in travail often refused to be placed under the influence of chloroform, on the ground that such practice was against the words of the Bible: "In sorrow (pains) thou shalt bring forth children."

As other physicians probably sometimes meet with similar objections on that ground, I beg leave to say a few words on this subject.

It is true that the words above referred to are found in the book of Genesis, chap. iii., verse 16, as having been addressed by the Lord to Mother Eve. But the words must by no means be taken literally as a divine *command* to every woman, so as to make it a

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duty for her to suffer the pains and pangs of parturition without being permitted to apply means to alleviate them or become insensible to them. In the same passage of Scripture in which those words are addressed to the first woman as a penalty imposed on her because of disobedience, we also read the words directed to the first man: "In the sweat of thy face thou shalt eat bread." Now, if we are to take the former words literally as a divine injunction to every woman, we must do the same with the latter words addressed to man, so as to make it sinful for every one to eat bread except in the sweat of his face. But no religious man ever scrupled to dry the sweat of his brow before eating his bread or to eat a morsel before his face was bathed in perspiration.

The Jewish religion never attached to the narrative of the so-called "Fall of Man" that importance which Christian theology attaches to it by basing thereon the doctrine of Redemption.

Rational interpreters of Scripture in the Middle Ages already inclined to divest the narrative of its literal sense and regard it as a sublime allegorical legend by which the sacred word intended to illustrate sin's origin, its progress and evil consequences. In accordance with the general view of Holy Writ that moral causes are underlying all events and occurrences of human life, man's usual toils and troubles in gaining his sustenance, and woman's cares and sorrows connected with her maternity, are here represented as consequences of disobedience against the divine will. If we look upon that narrative in this light, the words, "in sorrow shalt thou bring forth children," are as little a divine commandment as the words, "in the sweat of thy face shalt thou eat bread," but both sentences are rather a description of what usually happens to woman and man. In this light even the ancient rabbis viewed that passage. For, while pointing out all commandatory and prohibitory laws of the whole Pentateuch to the number of 613, they wisely refrained from counting the words just referred to among those laws.

Although the use of anesthetic agents (soporific potions) under surgical operations was not unknown in antiquity and is occasionally even mentioned in the Talmud (B. Metzia 83 *b* where it is termed *Semma d'shina*, somnific drug), still the practice of applying such agents to women in travail is of too recent origin to have been considered by the ancient rabbis. Had they known

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it they would certainly not have objected to it, as they expressly provided that the criminal before an execution, should receive a narcotic potion, which the noble women used to prepare for him, in order to be rendered insensible to the suffering of a capital punishment. (Talmud Sanhedrin, fol. 43 *a*). If he who was to suffer death to atone for an atrocious crime, was permitted to be rendered insensible to his deserved suffering, what wrong can it be for our good and suffering ladies to be placed under influences that remove from them the pains and pangs of their maternity?

Dr. M. Mielziner.

Cincinnati, June 8, 1886.

Rules for the Regulation of Dairies.—Inasmuch as physicians are necessarily interested in the details of matters relating to the regulation of food supply and especially of the milk supply of cities, we give herewith a set of rules which have just been adopted by the St. Louis Board of Health with regard to the regulation of dairies within the city limits.

I. No dairy shall be permitted to be maintained within the City of St. Louis, unless the premises are so arranged as to be kept in a sanitary condition as regards cleanliness, drainage and ventilation.

II. No dairy shall hereafter be established within the City of St. Louis, in which the cows are to be constantly confined in stables, and from April 1 to October 1, all stalls, stables or sheds used for dairy purposes shall be vacated for at least six hours every day.

III. In the construction and maintenance of dairy buildings the cowsheds must be not less than seven feet high from floor to roof at lowest part, and the stables must allow not less than seven feet in depth by seven feet in breadth for each double stall (accommodating two cows) exclusive of gangways.

IV. Cow-stables must be constructed with tight floors, and drains so arranged as to convey liquid filth at once to a cess-pool or sewer and such floors and drains must be washed out daily. No accumulation of manure or other filth must be allowed in or about such dairy, but the premises must be kept clean and the buildings whitewashed.

V. In portions of the City of St. Louis which are supplied with public sewers no dairy shall be allowed to be established or maintained unless provision is made for the removal at once into the sewer of all liquid excrement from the stables.

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VI. Where such sewer connection cannot be made, every dairy must be provided with a water-tight manure tank or vault so connected with the stables as to receive at once all liquid excrement from the cattle. Such tank shall never be suffered to become filled within one foot of the surface of the ground, but the contents thereof shall be removed as often as necessary to prevent offensive decomposition, and from April 1 to November 1 shall be removed daily, and such tank shall be provided with a close cover to prevent foul emanations.

VII. No accumulation of manure or solid or liquid excreta shall be permitted upon any lot used for exercise or pasture, but the same must be kept in a wholesome condition and free from any offense.

VIII. No solid or liquid manure from any such dairy shall be conveyed into any creek or running stream or be deposited upon the bank of such stream so as to cause contamination of the water.

IX. Cow-stables must be so arranged as to provide openings for ventilation on not less than two sides of the building. There must be an opening not less than two feet square for every double stall, and there must be ventilators in the roof not less than one for every twenty feet in length of the building.

SUICIDES IN LARGE CITIES.—M. J. KENT, in the *Boston Globe*, gives some interesting statistics with reference to suicides during the year 1885:

	NUMBER OF SUICIDES.
New York	207
Chicago	118
San Francisco	94
St. Louis	79
Philadelphia	75
Brooklyn	50
Boston	45
Cincinnati	44
New Orleans	30
Baltimore	28
Newark	22
Buffalo	18

The proportion of suicides to population, which is the only comparison of value, is given under:

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SUICIDES TO POPULATION IN 1885.

San Francisco	1 to 2,800
St. Louis	1 to 5,100
Chicago	1 to 5,700
New Orleans	1 to 6,000
New York	1 to 6,700
Newark	1 to 6,900
Cincinnati	1 to 7,300
Boston	1 to 8,800
Buffalo	1 to 11,2000
Philadelphia	1 to 12,00
Brooklyn	1 to 14,000
Baltimore	1 to 14,900

The above statistics show two curious facts: (1) That the number of suicides to population is greatest on the Pacific coast, and decreases almost in an arithmetical ratio, city by city, until the Atlantic coast is reached. (2.) That Brooklyn, which is practically a part of the City of New York, has less than half the number of suicides that the latter has. The census of 1880 places the number of suicides in the United States at one to 20,000 of population, while the statistics above show that the average in the twelve cities named is one to 8,450, which indicates that self-destruction is nearly two and a half times greater in the large cities than in the towns and villages.

The following record gives the ages of suicides in New York during 1885 compared with those in the United States for the census year.

Ages	New York.	United States.
10 to 15	..	13
15 to 20	8	141
20 to 25	25	250
25 to 30	22	256
30 to 50	98	995
50 to 70	47	703
70 to 90*	7	153
Totals	207	2,511

*One 90 years.

The principal methods of self destruction were as follows:

	New York.	United States.
Shooting	76	472
Poisoning	56	335
Hanging	34	154
Cutting	11	...
Drowning	7	...
All others	23	1,550
Totals	207	2,511

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Of the total number of suicides in New York, 55 were native born, 152 were foreign born, 167 were males, and 40 were femaless Those who were married numbered 73, widowers and widows, 26; single persons, 60, and 48 whose marital relations were unknown.

Those engaged in professional occupations numbered	5
Mechanical occupations	49
Other occupations	76
Unknown	77
Total	207

Beaumont Hospital Medical College.—A new medical college has been recently organized in this city under the name above given. A large and substantial building, situated on the N. E. corner of 16th and Walnut Sts., was purchased in the early spring, and is now undergoing the changes necessary to make it complete and well suited in every respect for the purposes for which it is intended. These alterations will be finished by September 1, and the first regular session will begin on October 4.

The faculty is constituted as follows:

W. B. Outten, M. D., Professor of the Principles and Practice of Surgery.—Dean; Alexander B. Shaw, M. D., Professor of the Practice of Medicine, and Diseases of the Mind and Nervous System; Walter Coles, M. D., Professor of Obstetrics and Operative Midwifery; Robert Funkhouser, A. M., LL. B., M. D., Professor of Topographical Anatomy and Clinical Surgery; W. A. McCandless, M. D., Professor of General and Descriptive Anatomy; R. M. King, A. M., M. D., Professor of Materia Medica and Clinical Therapeutics; C. M. Riley, M. D., Professor of Chemistry and Toxicology; W. G. Moore, M. D., Professor of Clinical Medicine and Physical Diagnosis; T. Hardy Smith, M. D., Professor of Physiology; Adolf Alt, M. D. (Heidelberg), M. C. P. & S., Ont., Professor of Ophthalmology and Pathology; Spencer Graves, M. D., Professor of minor Surgery, with Operations on the Cadaver; L. H. Laidley, M. D., Professor of Gynecology; Waldo Briggs, M. D., Professor of Genito-Urinary Surgery, and Clinical Surgery. —Curator of Museum; J. C. Mulhall, A. M., M. D., Professsor of Diseases of the Throat and Chest, and Climatology; Eustathius Chancellor, A. M., M. D., Professor of Dermatology and Syphilology; A. J. Steele, M. D., Professor of Orthopedic Surgery and Diseases of the Joints; D. C. Gamble, M. D., Professor of Otology; E. E. Furney, M. D., Professor of Diseases of Children, and Hygiene.—Secretary; Hon. Breck. Jones, A. M., Professor of Medical Jurisprudence; Walter B. Dorsett, M. D., Demonstrator of Anatomy.

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ORIGINAL ARTICLES.

THE ILIAC ARTERIES AND THE INFERIOR VENA CAVA. A STUDY OF THEIR VALVULAR ACTION UPON THE VENOUS CURRENT.

BY PROF. CHAS. A. TODD, M.D., *Missouri Medical College, St. Louis.*

[*Read before the Medico-Chirurgical Society June*, 1886.]

AT the last meeting of the American Medical Association, I presented to the Anatomical Section a statement of the result of experiments made for the purpose of explaining the reason of the remarkable relation that exists between the iliac arteries and the iliac veins—a relation that compels the belief that those arteries actually take the place of valves at the origin of the inferior vena cava.

It is a dictum in anatomy that there are no valves in the veins of the great cavities of the body. From the cranial cavity the blood readily drains away through numerous channels. In the thorax, the venous trunks are short, of large capacity, and are, besides, immediately subject to the suction action of the inspiratory movements. The abdominal and pelvic veins appear to labor under serious disadvantages, with the exception of the portal: the circulation in the portal vein is facilitated by the conditions that regulate the flow in the hepatic veins. These, it

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will be remembered, are constantly held open by the adherence of their walls to the surrounding, rigid hepatic tissue; they open into the vena cava just below the diaphragm, and, therefore, are directly within the influence of the pumping action of the inspiration.

But the blood collected from the lower extremities and pelvic organs ascends the vena cava under evident disadvantages; a large column of blood, extending from the fourth lumbar vertebra to the venous foramen of the diaphragm, must ascend against gravity, with the initial force of the heart materially weakened by distance. As the veins enter the pelvis and abdomen, their protecting valves disappear, and we should expect that, owing to the resistance of the superjacent blood, there would be a constant tendency to congestion in the lower limbs. The delicate pelvic organs, also, with their large venous plexuses, should be exposed to this danger.

If we examine closely the relation of the vessels along the course of the iliacs, we shall find a mutual relation between the veins and arteries that serves to explain the absence of such a serious vascular disturbance. It will be seen that just below the junction of the common iliacs to form the vena cava near the fourth lumbar vertebra, these veins *pass under* the right common iliac artery. The vena cava lies to the right of the abdominal aorta, while the common iliac veins both lie to the left of the right common iliac artery. The artery and veins are bound together by the fascia, and the latter rest upon the bone. The result of this arrangement is that the parent trunks of the cava are compressed by the artery just where valves are most needed, at the origin of that great vessel. The valve action is to be found in the pulsation of the artery, the vein being more or less completely compressed between the expanding artery and the bone.

I have made a series of experiments to demonstrate this valve action. Laying open the abdomen of a dog, and pushing aside the viscera so that the finger could be laid upon the site of crossing of the vessels, as above described, the distinct venous swelling could be felt below the right iliac artery, synchronous with its pulsation.

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Another experiment consisted in passing a manometer into the vein. The apparatus comprised a delicate hollow rubber cylinder, closed at one end, and at the other slipped over a glass tube, bent at right angles. The rubber was passed up the femoral vein with a guide until the point could be felt well in the vena cava; the glass was secured in the femoral and then the whole filled with water, and its changes in level noted. Owing to a variety of causes, this experiment repeatedly failed to give positive results for or against. The small calibre of the vessels, the disturbance through respiration, etc., seemed to interfere.

On the human cadaver the following demonstrations were made: The abdomen was freely laid open by a crucial incision. The left femoral vein was opened, and by cannula and tube connected with a reservoir of water; the cava was opened well up and provided with cannula and tube to conduct away the escaping water. The left femoral was selected because the left common iliac vein passes directly under the right common iliac artery; the right vein passes more gradually. When the reservoir was raised enough to cause a rapid flow through the vessels, it could be seen that the artery strapped down the vein, so to speak. Next, the right femoral artery was opened, and the bent nozzle of a large syringe tied in the abdominal aorta, so that water could be freely forced through. While the venous flow was effected, the syringe was worked intermittingly to imitate the heart's action. With each descent of the piston a sudden and momentary increase of the flow from the cava tube was noticed; this represented the amount of pressure upon the vein exercised by the pulsating artery. Of course this experiment was a crude one. A manometer used upon a large animal, as the horse, would be the most proper. I think we are justified in the belief that through this valve action the venous current is momentarily more or less completely divided, the column in the cava is supported and expedited, while the stream below is relieved from its weight and so encouraged.

Elsewhere in the body similar relations of vessels exist. In the thorax the lesser azygos vein passes under the thoracic aorta, just before it opens into the azygos major. In the human body I have observed dilatation of the azygos at this point. The

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great azygos and thoracic duct pass through the aortic opening of the diaphragm. This opening is an unyielding, osseo-fibrous foramen, so that it is extremely probable that the expanding aorta will compress the other vessels as they lie in contact with it.

COLOTOMY.

BY ROBERT FUNKHOUSER, A. M. M. D., LL. B., *Professor Topographical Anatomy and Clinical Surgery, Beaumont Hospital Medical College.*

[*Read before the St. Louis Medico-Chirurgical Society*, June 29, 1886].

TO-DAY the tendency in surgery is toward bold and fearless action, to go out of the beaten track and follow one that has much more éclat at the time of procedure, if not as much actual real good in the end. Of late years many brilliant operations have been performed, but not one with so little risk and so great benefit as that of colotomy. The operation is by no means a new one, Callisen, Littré, Amussat, Curling and others, have drawn the attention of the profession to it. But fifty operations up to 1873 had been performed. It is true that in the majority of cases, relief only is expected, and a cure is out of all possible hope, but the relief has been so pronounced and complete for the time being, that it does appear remarkable that the operation has not been recognized and performed earlier and more frequently. Of the two surgical procedures practised of late years, viz., laparotomy and colotomy, the latter is accompanied with much less risk to the patient. Its scope, however, is limited, being useful only when obstruction and disease occur in the large bowel. Heretofore, colotomy has been in bad odor both metaphorically and literally. A patient fears to be an object of loathing and a nuisance, as he terms it, and would rather die. Indeed, until nature adapts herself to the new anus, the condition of the patient is disagreeable and odorous, and it should be the aim of the physician to overcome any such objections the patient might have. It is too apt to be the case that the operation is delayed too long. Where proctotomy is out of the ques-

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tion, particularly in the early stage of cancer, the operation of colotomy should be resorted to without delay, though we cannot truthfully say to the patient in the *early stage* that by submitting to colotomy he will live much longer than if he does not, even though at the time of the operation there may be no obstruction, no emaciation, no detectable glandular swelling. (Allingham). It is justifiable when an obstruction, existing in the large bowel, threatens a patient's life, when an opening has taken place between the rectum and bladder or urethra, or even vagina high up, or uterus, as the distress and discomfort in these cases is exceedingly great. (Holmes, Erichsen). Amussat was the first to perform the operation, 1839, though first suggested by Callisen in 1796. Littré, in 1710, was the first to open the bowel for obstruction, but he advocated cutting through the peritoneum. But to Amussat belongs the full credit of having demonstrated that the operation was safe, though modern writers have condemned it as unsafe and impracticable.

When the diagnosis is not certain, when the precise location of the difficulty is not known, laparotomy should be performed, but when no doubt exists, the surgeon would be justified with Amussat's operation only. One point to be taken into consideration relative to the mortality attending this operation, is that in the majority of cases, where the physician is called upon to produce an artificial anus, the patient is weakened by organic disease and want of nourishment, and the best that can be expected is but a lease of life for a limited period with comparative freedom from pain. In many cases of cancer of the rectum, too high for extirpation, or of the sigmoid flexure, or of adjacent parts, the patient might be saved much suffering and perhaps the progress of the disease delayed, should the operation be performed at an early stage. When the intestine is full, the patient not very fleshy, and no meso-colon, only the sides and anterior surface of the colon covered by peritoneum, the operation is comparatively safe and not a difficult one. It is sometimes no easy matter to determine in each particular case the time when the operation should be performed. When the symptoms are urgent and acute, and the case likely to result rapidly in death, if not relieved by nature or by art, it behooves

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the surgeon to act quickly. But these cases are rare when the operation of colotomy is required, they belong to the category demanding the sister operation laparotomy. Indeed, the patient may go from six to eight weeks without a motion without fatal results in cancer, the bowels adapting themselves to the circumstances as it were. We cannot, then, rely upon constipation as the symptom demanding surgical interference, but the case with the symptoms must be taken in its entirety into consideration, before we are justified in proceeding secundum artem.

Even when there is scarcely any constipation or obstruction, and we are assured the case is cancer, the sooner surgery is called in, the better for the patient. The operator should be prepared to find what some writers deny, a mesocolon, at the place of operation. It is more common than would be inferred from the writings on this subject. The surgeon having concluded to operate, the patient should be placed in position, on the right side, should the left lumbar region be opened; care should be taken to prevent any rotation of the trunk, so as to have the region in which the operation is confined, free of wrinkles or rolls of skin. As a convenience, it would be well to mark off with an indelible pencil or in ink, the line of the incision. This should extend from a point two inches from the spine of a lumbar vertebra in the centre of the space between the crest of ilium and the last rib above, and inclined a little downwards and outwards in the direction of the rib. Two inches from the spine of the lumbar vertebra is the outer border of the erector spinæ, and one inch to the outside of this is the quadratus muscle, along the border of which lies the colon. The direc tion for incision by some operators is different. Allingham, than whom there is no better authority, directs that, in order to act as a more certain guide to the colon, viz., the quadratus lumbarum muscle, a spot should be marked on the crest of the ilium fully half an inch posterior to a point midway between the two superior spinous processes. The incision should be plenty long, three or four inches being in most cases amply sufficient, though some operators make the incision as much as six inches in length in very fleshy and muscular patients. The dissection of the tissues should be conducted with great care. When the intestine

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is reached, it should be brought to the sides of the wound in such a manner as to prevent the escape of the contents into the wound, particularly deep down between the intestine and the sides of the cut. This is accomplished partially by passing a needle through the intestine transversely along the lower edge of the wound, and in a similar manner along the upper border; before doing this, however, all oozing should have ceased. This having been attended to, where the incision is longer than actually necessary, as it is in the generality of cases, it would be well to lessen the extent of exposed cut surfaces to the hurtful action of the feces, by closing the wound before and behind with several sutures, or as many as may be indicated in each particular case. Where the intestine is full, it is difficult, almost impossible if the contents are soft, to prevent the feces from escaping on to the cut surfaces. The passage of the sutures accomplishes this only partially, as I have said. As an additional precaution upon opening the intestine, it would be well to be prepared to pack it with sponges, or pledgets of absorbent cotton with strings attached. The sutures should now be tied, and the edges of the opening of the intestine fastened to the borders of the wound. The closure of the wound before and behind may now be completed and the packing removed from the intestine. Allingham directs that the incision be made longitudinally while others make it transversely. It is rare for union to take place without the formation of matter, the escape of which, is facilitated by the position of the patient, still I would recommend that the patient lie upon the opposite side as much as possible, so as to prevent the tendency to prolapsus of the bowel through the opening, which is frequently a disagreeable and painful occurrence. Nature is quite kind in many cases by showing a disposition in time to mould the artificial anus after the natural one.

The case that has called forth these remarks is quite interesting in several particulars. March, 1885, I was called to see a Mrs. S. 65 years old. Upon examination, I found cancer uteri. She dated the beginning of her trouble from the birth of her second child, forty years ago. About twenty-five years ago she says a physician examined her and pronounced the trouble fibroid disease of the uterus. The diagnosis, if such, was in-

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correct in my opinion. Very likely she suffered for an indefinite period with chronic inflammation of the womb with acute exacerbations at times, which, no doubt, played no unimportant role as a cause in the subsequent disease. The history of the health of her family was good. She menstruated at 15 years, had three children. At the birth of the second, she had a difficult labor, as there was an elbow presentation. The menopause occurred at 48 years, the change extending over two years. Two years ago last June she called in medical aid relative to hemorrhage, which she had occasionally. She did not suffer from pain particularly then, but subsequently did. In January following, the disease was pronounced cancer. At the time I first saw her, the disease was mostly confined to the neck of the womb. I curetted the cervix and applied chloride of zinc. Under this treatment the patient become easier, and the danger from hemorrhage lessened for the time being. About July, 1885, she began to suffer pain in defecation, which later on became intense, so much so that she dreaded to go to stool, and would allow eight and ten days to pass without doing so. Finally, it became so unbearable that she begged for surgical interference, even though but a shadow of a chance of relief remained. In answer to her questions, I said that one of two operations might be performed, viz., laparotomy or colotomy, and explained the differences in detail. She desired to have the first performed. I pointed out as well as I could the nature of her disease, that the disease had already very likely advanced too far for its removal, that the failure or success depended upon the progress of it, and adhesions which might be present. I told her she might die on the table, but she said she preferred that to the misery she suffered. About this time I made a careful examination. There was no characteristic odor, the condition of the glands in neighborhood gave negative results. The vagina was free. The uterus was slightly increased in size, of angular shape, hard to the touch, sensitive to pressure. The neck and lower portion of body movable, the upper portion only slightly so. I was unable to distinguish the Fallopian tubes and ovaries. Several physicians examined her, and found her condition as above described. At the earnest and repeated request

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of the patient, I proceeded to operate July 30, 1885. There were present Drs. Carson, Moses, Tupper, and Glasgow, who kindly assisted me. Upon opening the abdomen, an examination disclosed the fact that it would be impracticable to proceed with the operation, owing to the implication of the broad ligaments and adjacent parts, the adhesions between the uterus and rectum and surrounding tissues. The upper portion of the body of the uterus and the broad ligaments were bound down, acting as a valve upon the rectum and preventing a free evacuation of the bowel. At this point, just above the fundus, the intestine was greatly distended. A few of these adhesions were ruptured. The wound was closed by silk sutures, the patient making a rapid recovery. She continued to improve after the laparotomy. She suffered much less during defecation, and considered for quite a time that the cancer had been removed. She even went out and attended church, which she had not been able to do for a year previous to the operation. It was considered well to allow her to be partially deceived. I have no doubt that operation helped her, as no doubt the severing of some of the adhesions had allowed free movement of rectum. But the apparent improvement and relief were only temporary. Gradually the pain returned in full force. The difficulty in defecation became greater, until finally she was unable to accomplish it. So great were the muscular efforts in straining that the abdominal parietes in the line of the incision began to distend, and finally an abdominal hernia the size of a child's head protruded. About the middle of March, there occurred an opening between the bowel and uterus. The cancerous cachexia of the patient was now marked, and she grew feeble and emaciated. At times she suffered from irritability of the bladder. She was unable to have a passage. For three weeks previous to the operation of colotomy, she tried at first mild laxatives with enemata but failed, the water passing up to the constriction through the fistulous opening into the womb and through the vagina. At the time of the laparotomy, I informed the family that colotomy would eventually have to be performed, should she survive the operation. As the patient was in such misery, the only relief offered was an artificial anus in the lumbar region, which she

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was anxious to have performed. This was done, as outlined in this paper. I am indebted to the assistance of Drs. Gehrung and Graves. No difficulty was experienced in the performance of the operation. The intestine could not be drawn up out of the wound, which, to some extent, complicated the opening. Though the distension of the bowel favored the finding of it in the present case, it was more than counterbalanced by the difficulty of preventing the escape of feces into the wound. The patient rallied from the operation, and for five or six days did well. Her bowels moved and she was comparatively free from pain. Enemata were used both into the upper and lower portion of the bowel. On the third or fourth days after the operation, occasionally a discharge mixed with feces, blood and cancerous debris passed from the anus and vagina. This discharge ceased for several days and again returned, but in small quantities. It is possible that the distention of the bowel was relieved by the operation, the parts became relaxed and allowed the passage of the discharge from the bowel: besides the breaking down of the cancerous growth, may have enlarged the opening. About a week after the operation, her stomach became very irritable, finally refusing to retain any nourishment, and two weeks after the operation she died from exhaustion and inanition. Upon making a post-mortem examination which was hurried and confined to the cavity of the pelvis, I found several nodular masses the size of filberts in the adjacent tissues as here represented. There were present indications of past attacks of inflammation of the peritoneum. Bands of various lengths and thickness extended from parietes of the abdomen to the intestines, and from intestine to intestine. Portions of the intestine were agglutinated together. The walls of the intestines were thinned and weakened, readily tearing. In removing the uterus and its appendages, the bladder and rectum, the tissues gave way, rupturing the bladder. All of these were matted together, the disease extending backward, binding the rectum to the tissues of the posterior wall of the pelvis, forward implicating the posterior wall of the bladder as is seen in the specimen. The fistulous opening between the uterus and rectum is well shown. The contour of the uterus is ill-defined and the Fallopian tubes indistinguishable.

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At one of the treatments, I passed the sound into the uterus further down than the supposed depth of the organ would indicate. At the time I was unable to determine its course. I do not now think it passed into the Fallopian tube, but into the cancerous material between the uterus and rectum, or perhaps into the rectum. This occurred before the operation of laparotomy. The ovaries have almost been obliterated. All that indicated the left ovary was several small serous cysts, one about the size of a hickory nut, others much smaller, which have been cut open as here indicated. The right one has undergone cystic degeneration of a dermoid character, in which are seen hairs, etc.

ANNALS OF HYGIENE.—This journal has been made the "official organ of the State Board of Health of Pennsylvania", and under the able editorial management of Dr. Joseph T. Edwards, will be a valuable means of communication between sanitarians. It is by no means exclusively devoted to the interests of the body of which it is the organ, but is "devoted to the fostering of Preventive Science and the Preservation of Health."

We would respectfully suggest that the printing of the cover with table of contents, etc., with red ink, is a gross infringement of one of the cardinal principles as to the hygiene of the eye. It is even more trying to the eyes than the black letters on the bright red paper which has distinguished Gaillard's and Daniel's journals.

NEW METRIC ABBREVIATIONS.—The International Committee of Metric Weights and Measures has adopted the following system of abbreviations. Italics are used with the exponents 2 and 3 to denote square and cubic measure.

Metre	= *m.*	Gram	= *g*	Litre = *l.*
Decimetre	= *dm.*	Decigram	= *dg*	Decilitre = *dl*
Centimetre	= *cm.*	Centigram	= *cg*	Etc.
Millimetre	= *mm.*	Milligram	= *mg.*	
Kilometre	= *km.*	Killogram	= *kg.*	

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CASES FROM PRACTICE.

RUPTURE OF INTESTINE FROM KICK OF A HORSE—LAPAROTOMY—DEATH.

By E. A. Waggener, Carrolton, Mo.

I was called at 10 A. M. August 1, to see a negro boy eight years of age who had been kicked by a horse about 7 A. M. the day previous. He was struck with sufficient force to knock him a distance of six or seven feet, turning a complete somersault, and, though complaining a good deal, he got up and walked to his home, a distance of nearly four hundred yards. He did not complain enough to excite attention for several hours, though he grew gradually worse from the first.

Dr. Craton was called at 7 P. M. At this time there was general disturbance, though no alarming symptoms were manifest. There were no abrasions or contusions to be seen. The boy complained of constant pain at lower line of right lumbar region, where the horse's foot struck. There was some tympanites, pulse 84, temperature normal. Respirations were somewhat hurried. No vomiting, no stool since reception of injury. There was an oblique inguinal hernia of right side, which Dr. Craton easily reduced. A clyster of warm soap suds was administered, which caused a rather free evacuation of fecal matter, but afforded no relief. The bladder had acted once or twice. There was no blood in urine or stool. A full dose of calomel was administered and Dover's powders left to be given during the night, hot fomentations alternated with turpentine stupes were ordered to be kept up continuously. No food had been taken. On my arrival, there were evidences of violent general peritonitis. The patient had grown worse rapidly since Dr. Craton's visit. The abdomen was greatly distended, though presenting a peculiar conformation; from about an inch below the umbilicus downward the distention was very distinctly less than it was above. There was no radial pulse. The extremities to knees

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and elbows were cold and bathed in a free cold perspiration. Respirations were hurried and superficial. She was very restless, with anxious features. A hypodermic injection of morph. sulph. $\frac{1}{8}$ gr. with alcohol m. xxv. was administered, and the clyster of soap suds was repeated with negative results. Exploratory laparotomy was explained and proposed to the parents, to which they readily assented. The boy was chloroformed, and assisted by Drs. Craton and Cooper, I made an incision one and a half inches long from the umbilicus upward. When the peritoneum was punctured, a large quantity of what seemed to be pure water, not serum, gushed out, followed by a great quantity of fecal matter. The incision was now extended down to near the pubic bone, as rupture of the bowel was no longer doubtful. An enormous quantity of fluid and fecal matter was removed. As often as the cavity was cleansed and manipulation of the intestines begun in search of the injury, it would suddenly refill: in the meantime the distention of the bowels in the upper portion of the cavity, was notably diminished, thus facilitating the operation. The entire colon and a number of convolutions of the ileum were in a state of complete collapse, so after finally getting the cavity clear of all foreign substances, I followed the collapsed bowel up until I found a slightly oblique longitudinal rent about two inches in length. *All* intestine *above* the rent was distended, while *all below* was completely collapsed. The wound was stitched with a double set of continuous cat-gut sutures. The peritoneal cavity was again thoroughly sponged, and the external wound sutured and dressed. Such antiseptic precautions as were deemed necessary were taken.

Immediately after the operation, another hypodermic injection of alcohol m. xxx was given. The pulse was now stronger, though barely perceptible at wrist. Patient expressed himself as feeling better, and called for a drink of water.

About one hour after completion of operation, he had a free discharge from the bowels, which was followed in a short while by a second, after which they became frequent and involuntary, the patient dying in about two hours.

The hernia which was reduced by Dr. Craton the evening before, was irreducible at time of my visit, and the scrotal sac was distended to its utmost capacity. After opening the abdomen, I grasped the intestine with one hand, and, while making very gentle

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traction with this, I made firm pressure on the scrotum with the other, and finally succeeded in forcing out a large quantity of fluid, apparently clear water, after which the bowel was easily drawn up.

The boy had been very thirsty for fifteen or eighteen hours, and had been allowed water without restraint.

There was not less than two and a half feet of intestine between the ileo-cecal valve and the rupture. The intestines, peritoneum, and omentum, were intensely congested with extensive very recent adhesions. The operation required about fifty minutes.

Had a correct diagnosis been made and an operation done twelve or eighteen hours earlier, it is quite probable this patient would have been saved.

NEW METHOD OF TAKING TEMPERATURE.—Filatoff recommends that in taking the temperature in children, the thermometer be previously warmed, and the point to which the column of mercury falls be observed, instead of that to which it arises. It is claimed to be a much more expeditious process than that commonly used. —*Med. Record*, August 14.

WATERMELON CURE.—Prof. Manassein recommends watermelon as a cheap but effective substitute for grapes in the treatment of chronic congestion of the liver, chronic intestinal catarrh, etc., *Med. Record*, August 14.

ETHER-TIGHT CORKS.—Corks may be rendered perfectly ether-tight by coating them with a solution prepared from four parts of gelatine, fifty-two parts of boiling water and one part of ammonium bichromate (added to the filtered gelatine solution) and then exposing them for a few days to sunlight.—*Med. News.*

ANTIVIVISECTION.—The S. P. C. A., of Jersey City, sued Dr. B. A. Watson, of that place on account of alleged cruelty to dogs in experimental surgery, Judgment was rendered against the doctor July 20, but the case has been appealed to a higher court.

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EDITORIAL.

MEDICAL WRITERS AND TYPE-WRITERS.

An editorial in the *Journal of the American Medical Association*, July 17, commends the use of type-writers to medical men who have occasion to write much. We would suggest an additional argument for the more general use of these machines by physicians. We know of many physicians of eminent ability who never write anything for the press because they shrink from the drudgery of writing, the actual physical exertion of recording their experience and observations; or even men who have for years kept copious notes and have accurately recorded their cases, but who are kept back from giving the profession the advantage of their experience by the wearisomeness of the labor of writing. If type-writers were more frequently used by physicians, we should have more valuable material from them, as well as having it come in better shape.

The editorial referred to is as follows:

"There are several reasons why medical men who write should use the type-writer. In the first place as a matter of economy of time, and hence, often, of money. It is easily seen that there is a great saving of time with a machine which will do a piece of work in one-half or one-third the time that it can be done by hand; and this is easily accomplished with a type-writer. In the second place, the machine promotes accuracy, especially in thinking, for two reasons: being more rapid than the pen, the thoughts of the writer do not wander so far ahead of his work; and should he wish to refer to what has been written he can see it at a glance, as on a printed page. A third reason is, the person who uses a type-writer sits erect, and can thus work for a longer time without fatigue than

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when bending over as in writing with a pen. It is thus more wholesome than the pen. The machine further promotes accuracy in the printing office—a great source of comfort to writers; and it promotes a degree of accuracy on the part of the writer in that he will not be able to make a wavy line or two or three letters and an apostrophe do duty for a long word, and his punctuation marks, if not more correct, will at least be less numerous. With a machine, therefore, writing becomes a pleasure, with none of the discomforts accidental and incidental to the use of the pen."

SCHOOL HOUSES OF ST. LOUIS.

A recent sanitary inspection of the public and parochial schools of St. Louis, and reported by the chief sanitary officer to the Board of Health, furnishes some data that are of interest not only to the citizens of our city.

The report relates to the condition of seventy-six public school buildings and forty-one parochial and private schools. In the vast majority of both classes of buildings the inspectors reported that they found them in good sanitary condition as regards cleanliness of building, cellars and yards, as well as regards the condition of privy vaults and sewerage. While there is a considerable number in which the vault is not connected with a sewer, it is in most cases due to the fact that no sewer is accessible for the purpose.

There is a large number of schools in which the children are dependent upon cisterns for their water supply, even though water mains are found in the street immediately adjacent to the building. In some cases the water of these cisterns was found to be in an unsatisfactory condition, and the water of cisterns remaining unused and stagnant during weeks of prolonged hot weather, such as we have had this summer, can hardly be otherwise than unwholesome, and wherever the water mains are accessible, it is to be hoped that the school board will adopt the recommendation that the pipes

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should be introduced into the school premises and the river water supplied to the children. In cases where water mains are inaccessible the cisterns should be thoroughly cleaned out and repaired wherever there is any suspicion of the water being tainted.

Of the seventy-six public schools it is found that forty-nine have vaults connected with public sewers and twenty-five have vaults which are not connected with sewer. Of one it is not stated whether there are sewer connections or not. One has water-closets in basement.

Of the vaults connected with the sewers it was found that the Colored School No. 5 and the Crow School were in bad condition by reason of the sewer being obstructed; another, Colored No. 12, is so deep that the bottom of the vault is below the sewer, allowing an accumulation of foul material there; another vault of unusually large size is reported very foul, and strong odors coming from sewer. A kindergarten school at Twenty-eighth street and Chouteau avenue has closet in cellar which is itself damp, and foul odors from closet and cellar are noticeable in the school. Complaints is made in four cases that the urinals were offensive, where otherwise the sanitary conditions were satisfactory.

Of course it is to be expected that the condition of vaults not connected with sewers will be less satisfactory than that of those which are so connected, and we find this to be the case. Of the twenty-five vaults not connected with sewers only one, Colored School No. 7, is situated on the line of a public sewer and should have connections made at once. At the Hodgen school it was found that the privy vault is situated only thirty-five feet south of the centre of the building, and the odor from the privies is blown right into the building. The privies were full and have no sewer connection. The officer states that while there is no public sewer immediately in the rear of the building, there is a private sewer connecting the Missouri Pacific R. R. Hospital with the Ohio avenue sewer which is the nearest public sewer, and recommends that arrangements should be made at once either to make use of

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this or to construct a special private sewer for the purpose of connecting the vault of the Hodgen school with the public sewer. All the rest are so located that there are no sewers accessible with which to connect them. Sixteen of the number are reported to be in need of cleaning, one has an illegally constructed vault, and in three the vaults are dilapidated or in bad condition.

Forty-nine of the public schools are supplied with water from the city water mains. Seven have wells, (one has both well and hydrant water); eighteen depend upon cisterns. With regard to three the officer omitted to mention the source of water supply; but two of them are not on the line of water mains and are probably dependent upon cisterns for their supply, while the report concerning the third (Colored School No. 12) is that the building is old and dangerous and "the whole sanitary condition of this school is bad." Subsequent report gives the information that the building is no longer in an unsafe condition, but there is no assurance that the sanitary condition has been made such as to render it fit for a school building.

Of the schools which are reported to be dependent upon cisterns the water at Colored School No. 5 is "dark colored and has a disagreeable taste," that at Belle avenue school has been officially pronounced unfit for use. Both these schools are readily accessible to water mains in streets adjoining, and should be at once supplied with hydrant water. The Arlington school is far away from the public water service, and as its cisterns are foul, they should be thoroughly cleansed and disinfected.

Six of the others are situated on the line of water pipes and should be supplied with hydrants. For the balance perhaps nothing better can be done except in some few cases to substitute filtering cisterns for wells.

Of the parochial and private schools thirty-one were reported to have privy vaults connected with sewer system, three have water closets, and the balance have vaults not connected with sewers. Five were reported in need of cleaning. One vault is illegally con-

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structed; two are in bad condition and need thorough repair or rebuilding.

Thirty-one schools are supplied with hydrant water; ten have cisterns and five have wells. Of those not having hydrant water, three have water pipes in the adjacent street and should make connection at once.

On the whole the showing is pretty satisfactory. An inspection in winter would be necessary to determine in what degree the ventilation and heating of the schools meets the requirements of sanitary science. It would also be a matter of interest to ascertain whether the lighting of the rooms is adequate and judiciously directed.

In the matters covered by the present report, the condition of a majority of the schools is very good, and the attention of the school board having been directed to the matter, the necessary measures will, no doubt, be taken to remedy the objectionable features found in the minority.

P. S. To a considerable extent this has already been done.

WOLPERT'S AIR TESTER.

Dr. S. W. Abbott, Secretary of the Massachusetts State Board of Health, gives in the *Bost. Med. and Surg. Journal*, Aug. 12, a description of a simple instrument for testing the quality of the air in school rooms, workshops, etc. The instrument was devised by Wolpert and was described by him in a recent article in the *Centralblatt fuer Allgemeine Gesundheitspflege*, Vol. II., p. 231. The action of the test is based upon the fact that while the carbonic acid gas is not itself the most obnoxious element of respired air, it is so intimately associated with the more injurious organic poison that its amount, which is determined with comparative ease, can be fairly taken as an index of the amount of the other, and therefore the degree of pollution of the air of a room may be prac-

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tically determined by estimating the amount of carbonic acid gas present.

The instrument, as described, consists of a simple rubber bulb, of a capacity of 28 ccm. with a glass outlet tube having a constriction near its extremity. A glass test tube, twelve centimetres in length and twelve millimetres in diameter, has a mark near the bottom indicating the point to which it must be filled with perfectly clear lime water, to contain three cubic centimetres. The bottom of the tube is whitened and has a distinct black mark upon it. A small wooden stand, a brush or swab, a vial of vinegar for cleaning the tube and a bottle of clear limewater completes the outfit.

The method of testing is as follows: The test tube is filled with the clear lime water (saturated solution) to the horizontal mark. The bulb is then compressed so as to expel the air within it, as completely as possible and allowed to fill with air from the apartment. The tube connected with the bulb is then inserted into the lime water nearly to the bottom, and the bulb is again compressed with moderate rapidity so that the air may be expelled through the lime water, but not so rapidly as to cause an overflow from the test tube. Care must be taken to continue the pressure upon the bulb until the tube is withdrawn from the test tube as otherwise the lime water will be sucked up into the bulb. This process is to be repeated until in looking downward through the lime water from the top of the test tube the mark on the bottom of the test tube is obscured by the opacity produced by the reaction of the carbonic acid upon the lime water. With very foul air discharging the bulb a few times only will cause so much opacity as to obscure the mark, while with good air twenty-five or more discharges are required.

If the mark becomes obscured after filling the bulb ten or fifteen times only, the air is unfit for respiration. In a sick-room the air should be so pure that thirty or forty discharges of the bulb will be necessary to obscure the mark. The test should be made by daylight, the instrument being held over a white ground, as a sheet of writing paper, and care should be taken not to vitiate the result

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by the patient's own breath. A table is given showing in parallel columns the number of parts per 10,000 of carbonic acid in given samples of air corresponding to the number of discharges of the bulb from one to sixty.

THE FRESH AIR MISSION—THE COUNTRY WEEK—THE CHILDREN'S SANITARIUM.

Most of our readers are already more or less familiar through accounts given in the COURIER and in the daily press of the work, carried on for several years by the Fresh Air Mission. And yet we venture the assertion that very few of those who have not personally seen the results obtained, have any adequate conception of the advantages afforded to the puny babies from the tenement houses and alleys by one day's change, by one day's chance to revel in the luxury of fresh, pure air, unpolluted by the noisome smells and foul odors amidst which they have lived and sickened. It is not too much to say that hundreds of lives have been saved, thousands of cases of illness shortened and relieved, to say nothing of the comfort and pleasure afforded to these little ones and their mothers, by the weekly river excursions provided, during the hot months of these last few years, by the philanthropic ladies and gentlemen who have so successfully carried on the Fresh Air Mission.

Last year a society was organized after the plan of similar societies in the East, under the name of "The Country Week," and about one hundred aud forty children were sent out to country homes for vacations of from one to three weeks. The value to children in great cities, of such opportunities of getting near the great heart of nature cannot be overestimated.

Another charity, which will interest physicians, has just been organized during the present year, and is known as "The Children's Sanitarium." This is located at Webster Groves, ten miles

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from the city, and a most salubrious situation. A building containing some twenty rooms, in grounds embracing some eighteen acres, with abundance of shade, has been secured. Plenty of hammocks are swung under the trees. An abundance of milk and other nourishing food is supplied for children and their mothers, and medical attendance provided without charge.

The sanitarium is for children under three years of age. Each child must be accompanied by its mother or other competent female guardian, and must have a certificate from a regular practising physician that the child has no contagious disease, etc.

The women must take entire charge of their own children, make their own beds, and do such other light work as they need for themselves. Free transportation is furnished to aud from the sanitarium.

The three societies referred to are now united in one organization under the name of "The Children's Aid Society," with office at 405 North Eleventh Street, St. Louis. We shall report later the summary of the work for this year.

AMERICAN PUBLIC HEALTH ASSOCIATION.

The fourteenth annual meeting of this most important association will be held at Toronto, Canada, October 4—8, 1886.

We are glad to know that the local committee of arrangements have already made good progress in the preparation for the meeting. The importance and value of this association can hardly be overestimated. While not exclusively an association of physicians. it naturally results that a large proportion of the membership is composed of physicians, whose responsibilities and obligations constantly force them to the consideration of the problems involved in public sanitation. The meetings of this association have been full of interest, the papers and discussions have been most profitable, and the social features have been highly enjoyable. We

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hope that a large representation of physicians will avail themselves of the opportunity to combine pleasure with profit, by attending the meeting in Toronto next month.

Not only active members of the association, but those who desire to become members will be furnished with certificates giving the benefit of reduced rates of transportation, on application to Dr. P. H. Bryce, Chairman Local Committee of Arrangements, Toronto, Canada.

Arrangements have been made with many of the prominent roads securing to those attending the meeting round trip tickets for one and one-third, or one and one-fifth fare.

In the section of the country tributory to St. Louis and New Orleans, and wherever else the roads have not made special rates for the association, the committee advise that persons attending the meeting procure "summer excursion tickets" for Niagara Falls, which are on sale at all prominent points and are based on a one and one-fifth rate for a round trip. From Niagara Falls they can reach Toronto by the Grand Trunk Railway, or cross Lake Ontario by steamer "Chicora," making use of their certificates to secure reduced rates for return tickets.

Those desiring to attend the meeting should make application at once, as above, for the certificates to be filled out by the ticket agent at the starting point, when they purchase their ticket. In doing so he should notify the committee of the route by which he expects to go. It should be borne in mind that the privilege of reduced rates is extended to the families of delegates at well as to themselves.

LABOR AMONG PRIMITIVE PEOPLES.—*The Boston Med. and Surg. Journal* states that in one of the largest book stores of the "hub," the entire available force of the establishment was engaged for half a day in an ineffectual search for this work of Dr. Engelmann's in the department of political economy, attention being now so generally dir d to [non-medical] labor questions.

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BOOK REVIEWS AND NOTICES.

A THEORETICAL AND PRACTICAL TREATISE ON THE HEMORRHOIDAL DISEASE. By WILLIAM BODENHAMER, A. M., M. D. *New York: William Wood & Co.*, 8vo.; pp. 297. (St. Louis, J. H. Chambers & Co.)

This is an 8vo of 290 pages. The author says the work is designed to be encyclopedic in character. There are many interesting facts presented in the history of the disease and its treatment, but they are contained in an immense mass of words, and require much reading to winnow them from the chaff. The style is, however, entertaining.

The practical suggestions are generally good, and are evidently gleaned from the experience of a large practice. The author thinks the practice of injecting hemorrhoidal tumors is of value in a limited number of cases when care and judgment are exercised in their selection, but gives his preference very decidedly to the ligature as the most reliable and efficient method of treatment. He does not abcise the tumor after ligation. It seems to me that the tumor shrinks more quickly and is less likely to be a source of obstruction when incised than when allowed to remain intact. The incision of the tumor after ligation is a safe procedure, and is not open to the objections which sometimes pertain to their excision, viz., the retraction of the tissue of the stump through the ligature and consequent hemorrhages either into the cavity of the gut, or in the submucous cellular tissue.

In discussing the efficiency of the dilatation of the sphincters in curing hemorrhoids he questions properly, I think, the curative power on well formed hemorrhoids as also the theory of their development from obstruction offered to the return flow of blood by the passage of the veins between the muscular fibres of the rectum because of their undue spasmodic contraction.

There is, so far as I can discover, nothing new in the book, but it is valuable as an historical guide and as a record of the practice of various surgeons in dealing with hemorrhoids.

H. H. MUDD.

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MANUAL OF THE DISEASES OF WOMEN, being a Concise and Systematic Exposition of the Theory and Practice of Gynecology. For Students and Practitioners. By CHAS. H. MAY, M. D. *Philadelphia: Lea Brothers & Co.*. 1885. 12mo.; pp. 357; cloth.

All that is claimed for this little volume by its author is that it presents in a condensed form, classified and systematically arranged, the accepted views in regard to the modern practice of gynecology, giving "a careful résumé of the teachings of the leading authorities in this country, England and Germany.

It was "written at the request of the author's quiz classes," and for the purpose of aiding students in preparing for examination, or to facilitate the work of the lecturer in preparing to meet his class, by suggesting lines of further research it may be of service.

DICTIONARY OF PRACTICAL SURGERY by various British Hospital Surgeons, edited by CHRISTOPHER HEATH, F. R. C. S., etc. Vol. I. Abdomen—Lymph-Scrotum. *Philadelphia: J. B. Lippincott Company.* 1886. 8vo.; pp. 884; cloth; $7.50.

This volume is intended to fill in the field of surgery the place that has been taken in that of medicine by Dr. Quain's Dictionary of Medicine. The subjects are arranged alphabetically with numerous cross references when it has been found expedient to group together a series of diseases of one organ. The work is printed in double column pages without illustrations, and gives a large amount of material. The author has, we think, succeeded admirably in giving a compendium of British surgery of the present day.

As indicated in the title, most of the authors of the articles are hospital surgeons in different cities of the British Empire, representatives of surgical practice in India and the Colonies as well as in the British Isles themselves. Some of the names are those of men whose reputation has extended wherever surgeons use the English language, while others are those of the rising men whose works, though less widely known, has been recognized by those who have known it as showing evidence of a high order of merit.

It will be found that the articles are chiefly an expression of the individual opinions and experience of the authors, not a résumé of the opinions of others. This fact taken in conjunction with another, viz., that the editor has with admirable judgment selected for the purpose men whose experience and skill render their opinion and judgment well worth consideration and generally of adoption, renders the volume one of great value to the practitioner.

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The publishers have presented the volume in an attractive and serviceable form.

PRACTICAL HUMAN ANATOMY. A Working Guide for Students of Medicine, and a Ready Reference for Surgeons and Physicians. By Prof. FANEUIL D. WEISS, M. D., etc. *New York: Wm. Wood & Co.* 8vo.; pp. 456; cloth, (St. Louis: J. H. Chambers, 914 Locust Street.)

This valuable work fully carries out the author's promise in that it is a very practical guide in the dissecting room for the student, and at the same time will serve as a review in topography to the practitioner. The plan followed in its arrangement is most excellent. As each region of the body is taken up, we have first given the skeleton in the position it naturally occupies in each succeeding plate that is to illustrate the different dissections of vessels, nerves, and muscles, etc. The bony landmarks being thus established, dissections are exhibited from the surface inwards, one after the other, until all is shown. The main lines of cutting are laid down distinctly so that the student suffers none of that uncertainty and confusion inseparable from mere verbal description. The successive demonstrations upon the same scheme are the natural method and lead the student easily along to a comprehension of the whole topography of the particular region.

No references are made to "applied anatomy," the book being restricted to description. Special dissections of the eye and ear are omitted. The plates are of the best description in clearness and excellence of execution. The illustrations of the cavities with viscera, and of the viscera from various points of view, are gratifyingly complete, both artistically and structurally.

The author and publisher may well be congratulated upon the character of the work, and it is safe to assure them of a wide appreciation on the part of the medical public. T.

PUBLIC WELLS IN BROOKLYN.—In the beginning of 1882 there were 316 public pumps in the city of Brooklyn. Examination showed the water in most of them to be unfit for human consumption, on account of impurities from the street or from the soil permeated with filth from cess pools and privy vaults. Since then all these wells have been closed but one, which supplies water against which no complaint can be made. As it may at any time become a source of danger, this is kept under close observation.—*Ann. Rep. of Dept. of Health of Brooklyn*, 1886.

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BOOKS AND PAMPHLETS RECEIVED.

BOOKS.—Manual of Differential Medical Diagnosis. By Condect W. Culler, M. S., M. D., New York. London. G. P. Putnam's Sons, 1886. 12mo., pp. 161; flexible cloth; $1.25. (John L. Boland.) (J. H. Chambers & Co.)—Medicine of the Future. By Austin Flint, M. D., LL. D., New York, Appleton & Co., 1886. 8vo.; pp. 37, cloth, $1.00. (J. L. Boland & Co.) (J. H. Chambers & Co.)—A Treatise on Diseases of the Nervous System. By Wm. A. Hammond, M. D. With 112 illustrations. Eighth edition with corrections and additions New York, D. Appleton & Co., 1886, 8vo., pp. 945, cloth, $5.00. (John L. Boland.) (J. H. Chambers, St. Louis.)—System of Practice of Medicine. Edited by Wm. Pepper, M. D., LL. D. Vol. V., Diseases of the Nervous System. Philadelphia: Lea Brothers & Co., 1886. 8vo. pp. 1326; sheep.——(J. H. Chambers & Co.) —Illustrations of Unconscious Memory in Disease, including a Theory of Alterations. By Charles Creighton, M. D., New York: J. H. Vail & Co., 1886; 12mo.; pp. 212; cloth.—A Manual of Dietetics, by J. Milner Fothergill, M. D., Edin. New York: Wm. Wood & Co., 8vo.; pp. 255; cloth, $2.50.—Dictionary of Practical Surgery by Various British Hospital Surgeons. Edited by Christopher Heath, F. R. C. S., etc. Philadelphia: J. B. Lippincott Company, 1886. 2 vols in one 8vo.; pp. 910, 884; cloth; $7.50. (St. Louis: J. H. Chambers & Co.)

PAMPHLETS AND REPRINTS.—On the Limitation of the Contagious Stage of Syphilis. By F. N. Otis, M. D. (Rep. Jour. Cu. and Ven. Dis.)—Comparative Size of Metric and Old Units with Reference to Convenience. By Fred Brooks. Report of Committee on Weights and Measures, consisting of Charles H. Swan, C. W. Folsom and C. W. Kettell, Atkin and Prout., 1886.; pp. 28; paper. (Journ. of the Assoc. of Engineering Societies, May, 1886.—International Electrical Exhibition, 1884. Report of Examiners of Section XXIII. Electro-Medical Apparatus. Philadelphia: The Franklin Institute. 1886, 8vo., pp. 23; paper. —Is Disease of the Uterine Appendages as Frequent as it has been Represented? By Henry C. Coe, M. D., M. R. C. S., L. R. C. P., Lond., etc. (Am. Jour. of Obst., June, 1886.)—The School Board of Pharmacy, Purdue University, La Fayette, Ind.—Purdue University, School of Pharmacy, Bulletin, No. 1.—Enucleation with Transplantation and Reimplantation of Eyes. By Chas. H. May, M. D. (Med. Record, May 29.)—Ichthyol und Resorcin. von Dr. P. G. Unna.—The Present Status of Abdominal Surgery. By N. Senn, M. D. (Jour. Am. Med. Ass'n.)—New York Post Graduate Med. School and Hospital. Fifth Annual Commencement, 1886-'87—Report of a Case of Successful Transfusion in Typhoid Fever.

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By Wm. S. Whitwell, A. M., M. D. (Pacific Med. and Surg. Jour. and Western Lancet.)—Annual Announcement of the Baltimore Medical College. Session, 1886-87.—Fifth Annual Announcement and Catalogue of the Woman's Medical College of Baltimore for Session 1886-87.—Annual Announcement and Catalogue of the St. Louis College of Physicians and Surgeons. Session of 1886-87.—Forty-Sixth Annual Announcement and Catalogue of the Missouri Medical College. 1886-87.—Twenty-Sixth Annual Announcement of the Bellevue Hospital Medical College. 1886-1887.—Report of the Delegates from the Philadelphia County Medical Society to to the 37th Annual Meeting of the American Medical Association, with the Resolutions of the Philadelphia County Medical Society in Relation thereto.—Announcements for 1886 and 1887 of the Medical and Dental Departments of the National University.—The Forty-Fourth Catalogue of the Missouri Agricultural College and University. 1885-86.—Detroit College of Medicine. Announcement for the Session of 1886-87.—Two Obstetrical Heresies. By O. F. Starley, M. D.—Sixth Annual Report of the State Board of Health, Lunacy and Charity of Massachusetts.—Medical College of Ohio. Sixty-Eighth Annual Announcement. 1886-87.—Hard Chancre of the Eyelids and Conjunctiva. By David DeBuck, M. D.—Report of the Board of Managers of the Pennsylvania Hospital in 1886.—Homeopathy as viewed by a Member of the Massachusetts Medical Society. By Vincent D. Bowditch, A. B., M. D. (Bost. Med. and Surg. Jour.)—The Treatment of White Swelling of the Knee. By A. B. Judson, M. D. (N. Y. Med. Jour.)—Transactions of the Medical Society of West Virginia. May 19-20, 1886.—Relation of the State and the Medical Profession. By Chas. J. Lundy, A. M., M. D.—Sixth Annual Announcement of the Minnesota Hospital College. 1886-87.—Ichthyol and Resorcin. By Dr. P. G. Unna.—Intubation of the Larynx for Diphtheritic Croup. By E. Fletcher Ingals, A. M., M. D. (Jour. Am. Med. Assoc.)—A New Instrument for Intra-Uterine Medication. By Eugene C. Gehrung, M. D., St. Louis.—Twenty-Seventh Annual Announcement and Catalogue of the Hahnemann Medical College and Hospital, Chicago, Ill.

THE ECONOMY OF SANITATION.—The importance, even from an economic standpoint, of making suitable provision for efficient sanitation in large cities, is illustrated by the experience of Montreal. It is stated that the direct expense of coping with the late epidemic of small-pox in that city, without reference to the injury to the business of the city or the valuable lives lost, amounted to $100,000, a sum that in larger cities than Montreal covers the entire cost of a year's health operations for all purposes. And half that sum spread over a period of five years in preventive measures would have stamped out small-pox, or at least have prevented any virulent epidemic of that disease.

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REPORTS ON PROGRESS.

OBSTETRICS AND GYNECOLOGY.

REPORTED BY H. S. BROOKES, M. D.

Retained Placenta.—J. M. POSTLE, M.D., relates a case of retained placenta. Patient in her seventh month of pregnancy fell backward in a chair. Pain increased until premature labor took place. Cord was short and came away alone. Child was acephalic, lived but a few moments. Total absence of brain and cranial bones. Six weeks after delivery hemorrhage occurred lasting several days with increasing amount until patient was quite weak. Uterus flabby, soft, cervix dilated. Quinine, ergot and calomel were administered. Several pieces of placenta were removed. Placenta was in an excellent state of preservation, having remained eight weeks in uterus after delivery. Temperature not above 100.6°. No hemorrhage for six weeks after confinement. No septicemia.

Ovariotomy During Acute or Chronic Peritonitis.—In a paper read before the Baltimore Gynecological and Obstetrical Society, by P. F. Mundé, M.D., the results and experience from five cases in the above condition were related.

CASE I. Age 33. Single. Cyst unilocular, abdomen very tense. Operation refused. Aspiration with fine needle under antiseptic precautions. Removal of chocolate colored fluid. Week later, peritonitis. Pulse 20, temperature, 99.5°. Ovariotomy performed, cyst entirely removed. Peritoneum studded with flocculent lymphatic adhesions. Drainage. Death on sixth day from septic pyemia. The right parotid showing metastatic enlargement and suppuration.

Earlier operation might have saved this case.

CASE. II. Age 44, multipara. Tumor large, apparently solid. On opening peritoneal cavity colloid matter escaped. Tumor multilocular, adherent to bladder and intestines. Fifty ligatures

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applied, thorough syringing. No drainage. Weight of tumor thirty-five pounds. Recovery without a bad symptom.

CASE III. Age 38. Single. Double ovarian tumor. Advise removal as last desperate chance. Day before operation patient greatly weakened by vaginal hemorrhage. Patient insisted upon operation. Pulse 130, temperature 102°. On opening abdominal cavity, gush of colloid and purulent matter; general peritonitis. Right tumor adherent, left intraligamentous, rotten and removed in pieces. Death of patient while inserting sutures.

CASE IV. Patient, a multipara, sustained a fall upon the abdomen, following which there was some pain with marked increasing abdominal enlargement. First examination, abdomen flat, sides projecting, percussion dull, fluctuation indistinct and unaltered by change of position. On the right side a loose flaccid mass could be felt. Aspiration negative. On left side was observed a tumor size of a cocoanut, with tense walls. Diagnosis. Rupture of ovarian cysts of right side (probably colloid) and of intraligamentous cyst of left side. Patient deferred operation until last moment. Temperature 102°. On opening peritoneal cavity a colloid, stringy matter escaped in enormous quantity, all of which was removed from cavity, after which cavity was irrigated with a solution of corrosive sublimate, 1-2000. Colloid matter weighed thirteen pounds. Patient died of shock twenty-two hours after. Colloid matter came from cyst of right ovary and proved to be full of pus. Thinks that antiseptic drainage would have given patient better chances for recovery.

CASE. V. Age 47. One child twenty years ago. Patient had an abdominal swelling of five weeks duration, and was greatly prostrated. Well nourished yet cachectic. Abdomen but slightly distended; tumor flaccid, size of an adult head on right size; percussion resonant except on right side; pain abdominal and diffused. One day while suddenly stooping there was sudden pain and collapse; temperature 102.2°, pulse small and thready. Appearance of abdomen changed, tumor less distinct. On opening abdomen there was a gush of ovarian fluid in large quantities, peritoneum highly congested and covered with recent lymph deposits. Tumor multilocular, small pedicle, some loculi contained pus which escaped into peritoneal cavity. Thorough sponging but no irrigation. No shock; drainage. Peritonitis on second day; temperature 102.8°;

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vomiting obstinate despite discontinuance of nourishment and medication. Death on fourth day.

The inference is that it is safer to leave elimination of effused fluid,thick or thin,to medium of drainage tube, avoiding all irritation of sponge and antiseptic irrigation; impelled to this conclusion by the success of Dr. Lusk who depended upon the drainage tube, which tube was left in position forty days.

Therapeutics of Amenorrhea.—In a paper read before the New York Archives of Medicine, Dr. H. J. Boldt advanced the following ideas as to the cause and treatment of amenorrhea. Amenorrhea resulting from pregnancy or non-development, and those cases requiring surgical interference were excluded. This class of patients are generally young women from sixteen to twenty years of age. Their complaint is that they have menstruated regularly until within the last few months when the flow either partially or entirely ceased. Symptoms are constipation, headache, loss of appetite, cardiac palpitation on the least exertion. Such persons are pale and ill nourished, cardiac murmur, anemia, occasionally lower extremities edematous, in fact typically anemic or chlorotic. In the cases just described emmenagogues are contra-indicated, but remedies directed to the improvement of the general health are of benefit.

The majority of such patients belong to one of two classes of society: those whose sole occupation is study or novel reading without healthy exercise, their diet consisting of dainties; the second class are shop and factory girls whose occupation is sedentary, and food inadequate. This classification according to social status is to modify treatment to suit circumstances.

Treatment of first class requires fresh air, exercise and proper food to establish an equilibrium between mind and body. Exercise to be graduated, walking preferable to horseback riding. Salt water sponge baths followed by brisk rubbing. Warm sitz and foot bath few days before expected flow. Diet: Milk, oat meal, eggs, rare beef, wines and malt liquors in moderation. Chalybeate vegetables, as peas, beans, lentils. Abdominal massage, punctual defecation, stimulated if necessary by nux vomica, colocynth co., belladonna and aloin.

The second class take an early walk before and after work, gymnastic exercise five minutes, thrice daily. Diet: Ale, porter, beer,

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raw minced meat. At time of anticipated flow discontinue all exercise and maintain recumbent position. Iron tonics are indicated. In phthisical patients attention to pulmonary lesion will frequently re-establish for a short period the menstrual flow.

In plethoric patients, daily baths, methodical exercise and electricity are of benefit.

Permanganate of potassium, grain doses after meals in conjunction with sitz baths, begun one week before expected flow, are beneficial.

Another variety, emotional patients, are best benefited by fomentation to lumbar and hypogastric regions, just before expected flow.—*N. Y. Med. Record*, May 29, '86.

Sore Nipples.—PROF. PARVIN emphasizes the importance of carefully drying the nipple after nursing the child. He recommends the compound tincture of benzoin as the best application when the nipples are sore.

SURGERY.

The Morbid Anatomy and Pathology of Encysted and Infantile Hernia.—C. B. LOCKWOOD, F. R. C. S. read a paper before the Royal Medical and Chirurgical Society in which, commenting upon the practical importance of the subject and briefly referring to its history, the writings of Hey and Cooper and other authorities are quoted. It is shown that the origin of encysted hernia is usually attributed to the stretching of a cicatricial membrane which is supposed to obstruct the upper end of the patent processus vaginalis. This view is rejected because—1. Such a septum has never been seen and its existence is doubtful. 2. The specimens in the museums afford no indication that cicatricial tissue has entered into their composition. 3. Because the sac of these herniæ is always composed of two layers of peritoneum. 4. Because an examination of the tunica vaginalis shows that it either communicates, in cases of encysted hernia with the peritoneal cavity, or is simply closed by apposition and adhesion of the walls. Upon these and other grounds it is concluded that the various herniæ called encysted belong, in reality, to the infantile variety. In discussing the pathology of infantile hernia, they are attributed to some event

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connected with the transition of the testicle, which is described. It is stated that the processus vaginalis precedes the testicle, and that it is drawn along by fibres of the gubernaculum which are inserted into it. The usual account of that muscle is mentioned, but additional bands of it are described attached to the external sphincter of the anus and tuber ischii; and others are mentioned ascending the back of the processus vaginalis with the spermatic vessels to the peritoneum. These fibres are identified in the spermatic cord as the internal "cremaster," and after describing the looseness of the peritoneum of the back of the abdomen, the way in which it accompanies the transition of the testicle is explained. A band of muscular fibres which passes from the epididymis to the inner sac wall of the infantile hernia is next described and identified as the upward prolongation of the gubernaculum. These fibres are considered to have much to do with the origin of the hernial sac. The results of the inquiry are—A. That the London museums contain no specimens of encysted hernia such as is usually described. B. That the various specimens designated by that name belong to the infantile variety. C. That the latter owe their origin to the tractive power of the gubernaculum testis.

Two Cases of Penetrating Wound of Abdomen.—CASE I. C. H. æt. 12, was admitted to hospital Jan. 11, 1886, having been stabbed with a pen-knife just above the right groin. A portion of omentum, slightly injected, was protruding through the small wound. Chloroform was administered, a director introduced through the wound, and this was enlarged inward. The omentum was drawn to the inner side of the enlarged wound and the original wound examined. No injury of intestine was found. The base of the protruding omentum was transfixed by a double silken ligature and after removing the portion of omentum, the stump was returned within the abdominal cavity. The peritoneum and fascia were brought together with silk sutures and the skin also with a continous silk suture. The patient was discharged cured at the end of a month, not having had an untoward symptom.

CASE II. E. H., æt. 6, was admitted May 1, having fallen upon a sharp piece of clean pine which penetrated the abdomen below the umbilicus. Upon the withdrawal of the wood, a piece of omentum plugged the opening and eventually protruded through the wound. In this case also the wound was enlarged and the tis-

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sues examined. No laceration of the bowel was found. The omentum was treated in the same way as already described. The wound was then closed with deep and superficial sutures and dressed with oil silk and iodoform on wool. Opium was given every four hours. On the day following the accident and operation, there was slight abominal tenderness with some disposition to drawing up the knees. Vomiting occurred once.

May 4. Temperature 100.4°. Wound red at its edges; some pus appeared. Superficial sutures were removed and the red parts painted with iodized collodion. A large poultice was applied, and a mixture containing potassium chlorate and hydrochloric acid was prescribed.

In two weeks the patient was discharged cured.—*Austral. Med. Jour.*, June, '86.

Abortive Treatment of Mammary Abscess.—DR. LLEWELLYN ELIOT recommends first bathing with spirits of turpentine and then covering the part with a piece of cloth or flannel saturated with the same whenever there are symptoms threatening mammary abscess, such as a drawing pain upon suckling or a tender hard spot in any part of the gland. He states that this will seldom fail to abort the inflammatory process.—*Med. Rec.*, July 31, '86.

Excision of Pylorus.—Death in Four Days.—DRS. JOS. COATS AND ERNEST MAYLARD report the case of a carpenter, æt. 47, admitted to the Western Infirmary Feb. 10, 1886, complaining of weakness, emaciation, pain and frequent vomiting. These symptoms had been more or less pronounced for two years. A tumor was felt two inches above and slightly to the left of the umbilicus, in the form of a cylinder placed transversely and having a diameter of scarce four inches.

It was concluded that there was cancer of the pylorus, and after consultation with the family, exsection of the pylorus was determined upon.

The operation was performed March 11th, the patient standing it very well and appearing to be doing well for the first thirty hours. On the evening of the second day, vomiting set in and kept up until death occurred just four days after the operation.

The cause of death is not easy to state. The almost uninterrupted vomiting which carried off the patient, did not appear till thirty hours after the operation, and can hardly be ascribed to the

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anesthetic. The only obvious pathological lesion observed in the autopsy, was great distension of the stomach and bowels with flatus, and a limited patch of peritonitis shown by fibrine on the surface of the stomach to the extent of two inches from the seat of union.—*Brit. Med. Jour.*, July 24, '86.

Fecal Impaction in an Infant Five Months Old.—A. M. SHEILD reports the case of a five-months old female infant, fed artificially after the second month. Cow's milk sweetened was said to have caused sickness, and consequently to have been discontinued in favor of some patent farinaceous food mixed with a little milk. The infant improved for a time. The bowels became very much confined, small motions like "pebbles," of a clay color and very offensive passing with pain and difficulty. Vomiting set in both after feeding and at other times, and there were passages of blood and mucus mixed with liquid feces. There was occasional prolapse of the lower bowel: enemata of warm water had been used but not efficiently. Syncope had occurred several times during a couple of days, during which the surface was cold, covered with sweat and dissolution seemed imminent. Examination detected masses of feces in the rectum, the lower one of which was dislodged with the finger. It was of the consistence of baked putty, and was full of farinaceous matter and clotted milk. Enemata of olive oil and castor oil were ordered night and morning, and gentle kneading of the abdomen and rubbing with aloes liniment.

The next morning, the enemata having had no effect, the rectum was cleared with the finger. The scybala were quite hard and seemed to be unaffected by the oil. Small quantities of strained veal broth with a few drops of brandy were ordered to be given at intervals.

In the two succeeding days, there was slight improvement, the child having vomited less and appearing less collapsed. The rectum was again cleared, the masses were softer, but still clay colored, covered with blood and offensive. Peptonized milk was ordered with thirty drops of cod liver oil three times daily.

The process was repeated two days later, when it was found that the feces indicated the presence of bile. The general symptoms had improved, and it was deemed best to discontinue the mixture containing hydrocyanic acid, an alkali and carminative which had been ordered the second day the child was seen. The child im-

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proved, and at time of report, was eating well, though constipation was still troublesome.—*Brit. Med. Jour.*, July 24, '86.

Fracture of the Patella.—FREDERICK TREVES has adopted the following method of treating fractures of the patella. The limb is secured upon an ordinary straight back-splint, so as to keep the knee fully extended. The splint has a foot-piece which prevents any shifting of the apparatus, and is secured to the limb by straps of fine ribbon and buckles, which he always prefers to adhesive plaster in fixing splints. The knee is well washed and purified by carbolic acid. The position of the patella is carefully marked out in pencil on the skin, and the sites for the points of the hooks (Malgaigne's) indicated. The hooks should enter the bone at equal distances from the median line. Four punctures are made with a sharp tenotome at the point where the points are to enter. In each case the instrument should be passed down to the bone. The two upper punctures will open the synovial cavity, and through them fluid is very easily evacuated. The two lower punctures are without the joint. As soon as the fluid has escaped, the hooks are applied. These should be scrupulously clean, highly polished, and should be kept in carbolic water while the punctures are being made. The two parts of the apparatus might be separated and applied each one by itself, better the lower one first, and not until the hooks are well fixed on the bone fragments should the two segments be screwed together, so as to bring the fragments of the patella into close contact. The upper end of the apparatus has a tendency to "ride" a little. To obviate this he passes a tape over the upper hooks and under the knee, fixing it by a leaden clamp.

He has usually made this operation under carbolic acid spray, never finding it necessary to use an anesthetic. After the hooks are secured the spray is discontinued and the four punctures are covered with iodoform. The screw of the clamp is kept well oiled and clear of the powder, so that the hooks may be readily removed in case of necessity. The limb is now placed on an inclined plane.

He regards it as a matter of importance that the knee should be kept fully exposed to the air.

In cases so treated there has been no elevation of temperature, no complaint of pain, no suppuration about the punctures, no trouble in the joint. He has removed the hooks in from six to eight weeks. The union in each instance has seemed to be firm and the fragments closely approximated.

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More numerous cases and longer time is necessary in order to determine the ultimate value of this treatment; but the immediate results are very satisfactory.—*Brit. Med. Jour.*, July 24.

Exposure of Wounds to the Air.—MR. FREDERICK TREVES makes it a practice in all wounds or ulcers of the lower extremities and in all cases of compound injury of those parts, to keep the injured part exposed to the air, or, at least uncovered by the bed clothes. Observing the notorious fact that such injuries of the lower extremities heal much less readily than those of the upper extremities, he attributes it to the close, confined and heated atmosphere in which the lower extremity is kept when covered by the bed-clothes. Since adopting the practice of keeping such injuries exposed to the air he has found the healing process expedited.—*Brit. Med. Jour.*, July 24, '86.

Nephrectomy in an Infant.—ROSWELL PARK operated upon a child only twenty-three months old for the removal of a kidney (the right) which was believed to have undergone a fibro-cystic degeneration. The incision was made in the right linea semilunaris. The tumor, when removed before section, lacked but a fraction of an ounce of weighing four pounds. Only one noteworthy incident marked the course of the convalescence. The temperature began to rise on the second evening. At 6 P. M., it was 103°, at 10 P. M., 104°, at 11 P. M., 104.7°, at 4 A. M. nearly 106°, in spite of half-hourly doses of tincture of aconite root. At the latter hour he ordered three minims of tincture of aconite and five minims of tincture of digitalis hypodermically, and in two hours the temperature had fallen over six degrees. On the twelfth day the child returned home, and ten months after the operation was apparently in perfect health.—*Med. Press of Western New York*, August, 1886.

MEDICINE.

Chloride of Sodium in Bright's Disease—DR. A. MEMMINGER reported four cases in which favorable effects have followed the use of chloride of sodium in the treatment of Bright's disease of the kidneys. Three were hospital patients who were evidently on the down grade until this treatment was instituted. This was followed by such a marked improvement that they left the hospital

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before their discharge. The fourth case was still under observation in private practice. He used nothing else in the way of tonics and stimulants, but allowed a liberal diet. The same diet before the use of the salt had given no apparent results. Improvement was manifested in each case about ten days after the commencement of the administration of salt.

Dr. Allinger finds that under this treatment the amount of albumin in the urine decreases, that of urea increases, and that of chlorides markedly increases.

He aims to bring the patient as rapidly as possible under the influence of the chloride of sodium, and then to maintain this influence by gradually diminished doses.

He first orders ten-grain doses in gelatin capsules three times a day, and preferably one hour before or after meals. He thinks there is some advantage in alternation in this respect, one day taking the capsules before and the next day after meals. If there is the slightest degree of nausea, the patient is to assume the recumbent posture, when this feeling will pass off in an hour or two. Every second day each dose is increased by one capsule until the patient is taking five capsules three times a day. By this time there will be apparent good effects from the treatment, not only from improved subjective and objective symptoms, but from an improved state of the urine.

He now diminishes the dose of salt, having found that two capsules three times a day are sufficient to maintain the influence established by the larger doses.

If there is any decided nausea or disinclination to take the medicine, he discontinues it for a day or two, giving in the interval one or two alterative pills and then resuming the chloride. If there should be an increase of albumin with decrease of the urea and chlorides, he immediately resumes the larger doses till the patient is again brought fully under the influence of the chlorides when the dose is again diminished.

He has observed the most marked effects from this treatment. Headache, edema, low spirits, general weakness and anemia disappear, and the opposite conditions prevail.

He urges a thorough trial of this treatment by other physicians. —*N. Y. Med. Jour.*, July 3, 1886.

Carbolic Acid in Whooping-Cough.—C. W. SUCKLING, following the recommendation of Mr. W. F. Cory, has used carbolic acid in

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twenty-three cases of whooping-cough. Half a minim of glycerine of carbolic acid in peppermint water, he says, is sufficient for a child one year old, the dose increasing with the age.—*Brit. Med. Jour.*, July 24, 1886.

Rhus Toxicodendron.—DR. EDWIN BARNES, from a large experience, recommends the following treatment for the poisoning of rhus toxicodendron or of rhus venenata. Internally he gives the following:

℞ Sodæ sulphocarbolat., - - - - - - ℥iss.
Ext .gelsemin. fl. - - - - - - ℥i.
Aquæ pur., ad - - - - - - ℥iv.
M. Sig. Teaspoonful every two hours.

Locally the patient bathes the eruption every two hours with a nearly saturated solution of hyposulphite of soda.—*N. Y. Med. Rec.*, Aug. 7, 1886.

Sugar in Normal Urine.—Two new tests of extreme delicacy for the detection of sugar in the urine, have recently been published in the *Monatshefte f. Chemie.*

1. One-half to two cubic centimetres of the suspected liquid are treated with two drops of a fifteen or twenty per cent alcoholic solution of alpha-napthol, and the mixture shaken. A slight turbidity results from the precipitation of a little naphthol; sulphuric acid is then added in quantity equal to or even double the volume of the fluid, and the whole is shaken briskly. If sugar be present, a deep violet color is developed, and dilution with water throws down a violet blue precipitate, soluble in alcohol and ether with a yellow color, or in caustic potash with a golden yellow color. In order that this reaction may take place, the test must be made just as described.

This test will detect 0.00001 per cent of sugar, while the limit of Fehling's test is 0.0008 per cent, and that of Trommer's is 0.0025 per cent. No reaction occurs in the absence of sugar unless with vanillin, anethol, methyl salicylate and a few similar substances. These, however, either produce the color with sulphuric acid alone, or the precipitate formed on dilution with water is different from that formed in saccharine solutions.

2. If, for the alpha-naphthol an alcoholic solution of thymol of similar strength be used, the remaining manipulations being the

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same, a deep red varying from cinnabar to carmine is produced; dilution with water brings the color to a carmine, and after a time there separates a flocculent precipitate, which dissolves with a pale yellow color in alcohol, ether and caustic potash, with a bright yellow in ammonia. The delicacy of this test is about the same as that of the other.

Testing with these delicate reagents it was found that normal urine gives a recognizable sugar reaction even when diluted to the extent of three hundred times its volume with water; but with a dilution to four hundred times its bulk, no result follows.

In order that there might be no question as to sugar being the real cause of the reaction, examination with both these reagents was made of urea, creatine, xanthine, uric acid, allantoine, hippuric acid, succinic acid, phenol, pyrocatechin and indican, all of which gave negative results.

Brücke's opinion that normal urine constantly contains sugar is confirmed by these observations.

To distinguish between normal and diabetic urine, two methods may be made use of.

1. A specimen of normal urine and of that to be tested are equally diluted with water to about one hundred times their volume. The same quantity of each is then submitted to the tests, as described. If the suspected urine gives a deeper color than the normal specimen, it may be considered as diabetic.

2. The suspected urine may be diluted with water to from four to six hundred times its volume. When so diluted, normal urine will give no color reaction, while diabetic urine will respond distinctly.—*Phila. Med. Times.*, Aug. 7, 1886.

GLAUBER'S SALT.—The *Medical and Surgical Reporter* says that the sodium sulphate is decidedly preferable to the magnesium sulphate as an aperient and laxative. It is the mildest of the saline laxatives, is certain in its action, and efficient in a smaller dose than the others. In most cases one half teaspoonful to a teaspoonful, well diluted and taken an hour before breakfast, will produce one or two movements of the bowels about half an hour after the meal, without griping and without any unpleasant after-effect, as constipation.

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SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting, June 17, 1886.

Phantom Tumors — Supposed Pregnancy.

Dr. S. G. Moses. — A lady about 40 years of age once came into my office and stated that she was pregnant; she had never been pregnant before and was very much delighted with the idea. I placed her on the chair, conversing with her at the same time, and examined her. She said that she had been in that condition for six or seven months, and that she felt the motions of the child. Her husband was very much delighted of course. Her abdomen was found to be quite large; in passing my hand over it, I thought she was probably in about the sixth or seventh month, I felt the motions, but I heard no fetal sound. Dr. Gratz Moses was standing by, and he put his hand upon the abdomen, and told her to converse with me, and while she was so conversing the tumor disappeared. It was a phantom tumor. I told her husband that his wife was not pregnant, and they left my office very much disgusted. She was very near the monopause.

Another case was that of a lady who supposed that she was pregnant and almost at full term. She sent for her physician, who lived at a distance of about 100 miles, I believe, in order to have him present at the delivery. In this case the tumor disappeared without the appearance of any baby, though she afterwards bore several children.

Dr. Papin. — There is no question that the so-called phantom tumor is of hysterical origin. When associated with the insane idea of pregnancy it is usually about the monopause. I have occasionally seen phantom tumors in the maiden. In one case I could outline the growth and only recognized the fact that they were not true fibroids, because on percussing they elicited a reso-

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nant sound. This, in connection with the fact that the woman had developed these tumors at about the menopause, and that she was of an extremely hysterical nature, enabled me to make a diagnosis by exclusion, and basing my treatment upon the idea that I had nothing to deal with but a phantom tumor, I gave the woman large doses of asafetida; but as she knew what this drug was given for, I was compelled to disguise it in the shape of sugar coated pills. These she took willingly, and also freely of Hoffman's anodyne and valerian; and in less than forty-eight hours the tumor had disappeared, to recur again when the treatment was suspended for any length of time.

There are tumors that are not phantom tumors, they are not fibroid tumors, nor pregnancies, unaccountable in their origin, in their course of development, in their final termination.

One instance particularly occurs to me, coming under my charge in St. John's Hospital some fifteen or sixteen years ago. A lady of French origin, thirty years old, who had never menstruated, who had been married ten years and had longed for a child, became pregnant, as she supposed, about ten months prior to my seeing her; and her object in visiting me was not so much to ascertain her condition, for she thought she felt the motions of the child and had become greatly enlarged; and the mammary glands in sympathy had also developed and become quite large, and full of milk, so that in exhibiting the woman to the class, I could draw milk from them very readily. She had considerably more adipose tissue than is usual at that time of life, and her abdomen was extremely large. She was of a constipated habit. I placed her upon a table and examined her as carefully as possible, and there was no womb there; more than that, there were no ovaries. We all know that where the uterus is absent there is sometimes a monthly recurrence of dysmenorrhea without any show of blood whatever. I have seen some five or six such cases in the course of my practice, but here there were no ovaries. The most exhaustive examination through the rectum and though the bladder and vagina by palpation could detect nothing; she never had the least pain indicative of menstruation. Yet there was a large tumor which was irregular and nodular in appearance, rather flat upon percussion, and the mammary glands were quite full of milk. To give myself time to think about the case, I gave her half a dozen compound cathartic pills, and the next day, when she made her

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appearance at the clinic, the tumor was gone. It was simply a fecal impaction. The milk in her breast came simply because having imagined herself to be pregnant she had manipulated her breasts, and her husband had also probably manipulated them until milk had been secreted. I have seen milk in the male mammary glands. Velpeau one said: "Abdominal tumors are abominable tumors," and he said it most correctly.

Dr. McPheeters. — I was once called to a town in Illinois, about seventy miles below here to see a patient. While there I was consulted by the superintendent of an iron works in regard to his wife, a woman about thirty-five years of age, who had borne one or two children. There had been a cessation of menstruation. Her abdomen was swollen, as were also the mammary glands; and all the symptoms of pregnancy had continued for about four or five months, when quickening came on, and she was certain that she was pregnant. Her physician had examined her and pronounced her pregnant. The husband asked me to examine her, as he had some doubts about it. I examined her and could find no fetal heart sounds; and a digital examination satisfied me that the woman was not pregnant, and I so expressed myself. She was exceedingly anxious to have children and for that reason they were very much disappointed. About four months afterwards she came up to the city to be confined, and sent for me. The abdomen had gone on increasing, until it was as large as a woman's in the ninth month of pregnancy. She said she felt the motions all the time, and was satisfied that she was about to be confined, and came up for that purpose. I examined her by the touch and also with a speculum, and found the os absolutely undilated, and no sign of pregnancy present, nor any uterine disturbance whatsoever, and I told her she was not pregnant. She had no phantom tumor, nor did she have any uterine or ovarian tumor. The whole difficulty was an enormous hypertrophy of the adipose tissue of the abdomen. She went back home and I never saw her afterwards.

Extra-Uterine Pregnancy.

Dr. Gregory.—These cases recall to my mind a case which came under my observation ten or twelve years ago. I went to a neighboring city to see a lady with an abdominal tumor. I found a fat, healthy woman, with her abdomen probably about the size of a woman in the sixth or eighth month of pregnancy, and I learned that

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this had begun more than a year before. Until after nine months had elapsed, no suspicion entered the mind of any one that it was not an ordinary pregnancy. The physician whom she had consulted, and who had watched the case, her family physician, came; and it was supposed that she was really about to be delivered. This had happened some three or four months before I saw her. There was no delivery however; but she continued to enlarge, and had all the anxieties that are incident to such conditions. Her health seemed to break down at last; and her spirits were depressed; and she was anxious and despairing. So I was consulted; and I examined her very carefully. I sounded the uterus and determined that there was nothing in that organ; determined that the enlargement was not directly or indirectly connected with the uterus, but still there was an enlargement, and I could only say that it was not a pregnancy, because after all my examination, I was unable to tell exactly what the condition of things was. I said to the husband: You may expect me to give you a positive opinion in this case, but I can't do it; I have examined your wife until I am tired, and I cannot reach a conclusion, but it is absolutely certain that it is not an ordinary pregnancy. It is certain also that there is no hurry about interfering in the case; it is a case for observation; and if you will send your wife to St. Louis and place her under my care at the Sisters' Hospital I promise to watch her and give her the best of attention, and give her the benefit of the opinion of my confreres. All that is possible to do in her case will be done. In the course of three or four days she came to the Sisters' Hospital and was examined by a number of my friends. After examining her, they all felt precisely as I did. While here her health improved, she lost her anxious feeling, and regained a spirit of confidence, because I reassured her in such a way that she seemed to feel that the enlargement was not increasing, and she felt a good deal better. After three or four months she left for her home in Illinois feeling quite well, and afterwards she came to this city to live, remaining here three or four years in fairly good health, although she still had this enlargement. She disappeared, but through a friend of hers who lived in this City, I learned that she was living in Chicago and in fair health. Sometime last year a gentleman connected with an insurance company came to my office. This lady had had a life insurance policy in his office, and he came to inquire about the circumstances of her life and death. I told him

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I didn't know about her death, and he then told me that a doctor in Chicago desiring to relieve her from nervous paroxysms, which seemed from what he described to be a sort of epilepsy, had advised laparotomy. She consented, and, on making the operation, they found an extra-uterine cyst containing the skeleton of a fetus. She died from the operation. She had been carrying this fetus for some seven or eight years. Of course the fact that her abdomen did not increase was then explained. The interesting part of the case seems to me to be that she improved in health while under my treatment, and remained in a comfortable condition for a number of years, and then, these paroxysms coming on, died from the effects of the surgical operation. The popular idea with the profession is that these mysterious paroxysms in women are connected in some way with the pelvic organs. Finding that in some cases by the removal of tumors or by local treatment of the case these paroxysms are relieved, they very naturally think that in all cases of these peculiar paroxysms, there is some complication of the pelvic organs.

CASTRATION OF WOMEN AND MEN.

Dr. McPheeters.—Do you think laparotomy is a justifiable operation for epilepsy ?

Dr. Gregory.—I am not prepared to answer that question now. I have been thinking about it a great deal lately, and the idea seems prevalent in the gynecological portion of our profession, that there is a condition of the nervous system in females which is called hysterical and which occasions the breaking down of health; that these very strange paroxysms which we know are peculiar to females, are in some way or another connected with the pelvic viscera. Only yesterday I was called to see a patient, and it is the second time that this has occurred within a year or two, where a woman is subject to epilepsy and has mysterious pains which are referred to the ovarian region; she is utterly unfit for her duties: she is bedridden, she is a great sufferer, and the doctor who called me stated that he had made up his mind it was a proper case for laparotomy, for the removal of the appendages of the uterus. I went to see her at his request, and I could come to no other conclusion than that her situation warranted the procedure.

A few weeks ago during the Session of the American Medical Association, a physician brought his wife to this city; it was his

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second wife and she is a handsome young woman, not more than thirty years of age. She has had epilepsy for some time past—several years, and she has had one child. She has some ovarian trouble. He insisted upon a laparotomy as the only thing that would cure her. She had got the consent of her father and her mother and fully made up her mind to have this operation performed, and it was done. He was in my office on Monday, and told me that he was about to go home; that the operation had been performed and his wife had had no paroxysms since. Evidently this is the popular feeling now. I wonder that this thing does not get into our asylums—into the ordinary insane asylums. I wonder that men are not treated in a similar way. I don't see, if mania or mental conditions approximating mania are cured in the female by this operation, why castration should not be resorted to to cure the same class of troubles in the male. I don't know whether men will be as ready to submit to operation as women, but I don't see why reasoning from analogy does not lead us to the same conclusions.

Dr. Lemoine.—It is certainly an original suggestion.

Dr. McPheeters.—Do you think it rational to remove the ovaries in every supposed case of epilepsy or nervous trouble?

Dr. Gregory.—I do not say that it is, doctor, but I think it is getting to be the popular idea.

Dr. Papin—There is a diseased person called the old maid. A woman menstruates about 30 years of her life. Her social position, her surroundings, warrant her in wishing that she may, as her companions do, settle in life, in other words, marry. For some cause or other she never marries. Responsibilities are thrown upon her shoulders that prevent it, or she is disappointed in a love affair, or other causes prevent her from marrying. Now she will continue to menstruate from month to month and from year to year until the continued and never resting function of these organs finally attacks her nervous system and she becomes irritable. She is in other words an old maid. She has become peevish, fault-finding and annoying. Now I would like to know if it would not be proper to perform this surgical operation upon these persons.

Dr. Lemoine.—How many married women after the menopause are subject to the same disease?

Dr. Papin.—If they are hysterical after the menopause, it is because they have had a long life training of it and it is second na-

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ture with them. I think it would be a good thing to take out their ovaries also.

Dr. McPheeters.—Dr. Papin has drawn a picture of an old maid, but it is typical only of a small portion of them.

Dr. Papin.—I am speaking of the diseased old maids, not the normal ones.

Dr. Gregory.— I do n't know what experience the other gentlemen here may have had; but years ago I had a man come to me and propose and insist that I should extirpate his testicles. They had been guilty of certain improprieties that had worked up a sort of nervous condition which made life a burden. He had become miserable, death to him would have been a happy exchange for the suffering existence, and he came to me and urged me and insisted that I should remove them. Now I suppose this man represented that condition that has popularized this operation.

Dr. Boisliniere.—In Central Asia little girls are spayed a short while before the period of menstruation; and they are said to make very useful house servants, and it is surprising how little importance they attach to this operation. They do not seem to consider it a dangerous operation at all. The idea which Dr. Gregory has advanced is, I think, an original one, and there is probably a great deal in it, but I think it would be difficult to popularize the idea among men. I myself have heard of the suggestion which has been made having been carried out by persons without the aid of the surgeon. I know a man who was probably in the condition which the doctor describes, and he went into a shop and put the organ upon a block and at a single stroke cut off the testicles. The same thing was performed by a great doctor in theology who was tormented by these terrible temptations, and he got rid of the organ that gave him the trouble, that is he castrated himself. This is an historical fact.

Dr. Lemoine.—What was the effect of the castration?

Dr. Boisliniere.— It had the desired effect. He was found bleeding, and surgical interference enabled him to make a good recovery.

Dr. Gregory.—Sometimes it is rather difficult to differentiate cases of phantom tumor from pregnancy. There is a very familiar history of a case in England in which a lady supposed that she was going to have a child, and everything was gotten ready for the delivery, when the doctor suggested that they put the patient under the influence of chloroform, and upon doing it the tumor disap-

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peared and the movements of the child disappeared also. This method of using chloroform was suggested by Simpson. It frequently answers all purposes. In cases where women are condemned to death for capital offenses, they often feign pregnancy; and in order to determine whether they are or not, chloroform is used.

Dr. Prewitt.—The case reported by Dr. Gregory reminds me of a lady about 50 years of age, who seemed to have a tumor. Upon a superficial examination I certainly thought there was some tumor in the belly, but getting my fingers around under it, and on making an examination per vaginam, I convinced myself that there was no tumor, simply a mass of fat which overlapped and hung down. I don't know what became of this woman; I saw her perhaps ten days since.

Dr. Scott.—Some years ago a woman came to me who claimed that she was pregnant. She was nearly 50 years of age. On making a thorough examination of her I said to her, "madam you are not pregnant"; this was at the first examination. "Oh yes," said she, "I know I am, I can feel the child." "You are mistaken, you are not pregnant", and bowed myself out. A few days after that her husband came to see me at the office and stated, "Doctor, you are mistaken about my wife, she is pregnant." I said, "Oh no, she is not pregnant at all sir." The husband said, "I can feel the movements of the child myself." I said "I think you are mistaken sir." He said, "No, I am sure of it." Ten years afterward I was called out on Grand Avenue to see a man who was sick, and there I recognized this man. I asked him if his wife had a child, and he said she had not. Now how this husband made the mistake about the motions of the child I do not understand, because he was a very intelligent man, an architect.

Dr. Papin.—The woman probably had a little dyspepsia, and there were movements of gas in the stomach and bowels which simulated the movements of the fetus.

EXTRA-UTERINE PREGNANCY.

Dr. Gregory.—It seems to me that a very important subject has been presented this evening, that of extra-uterine pregnancy. This is certainly very rare. I would like to ask the doctors present who have had an extensive practice in obstetrics and gynecology whether they ever met with any such cases.

Dr. Lemoine.—I have never seen a case that I remember.

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Dr. Papin.—The only case that I remember was that of a woman who was brought from Boonville to me by her attending physician. She had an opening in the cul-de-sac of Douglas with very large lips around it, and in running my finger up into this opening, I felt the sharp edge of a parietal, and passing up a pair of forceps, removed it. I then removed another bone and then a piece of vertebra and then a long bone of the arm, and could find nothing more, and she told me that she had passed several pieces through the opening in the cul-de-sac of Douglas.

Drs. S. G. Moses, Yarnall and Prewitt all said that they had never seen any cases of extra-uterine pregnancy.

Dr. Boisliniere.—I remember a case which was reported before the St. Louis Medical Society, where a very intelligent woman who had read a good deal about uterine disease and extra-uterine pregnancy stated that she had passed bones which were supposed to be those of an extra-uterine fetus. These bones were presented at the Medical Society, and Dr. Hodgen examined them and pointed out that they were chicken bones which this artful woman had placed in the rectum and then pulled out when her doctor came to see her.

DISLOCATED LIVER.

Dr. Papin.—I neglected to say that the case in which the bones were removed from the cul-de-sac of Douglas, recovered perfectly. I preserved the bones for a long time. I would like to ask the opinion of the surgeons in this Society in regard to the case of a young woman whom I am attending in the northern part of the city. She is a German woman who was confined about two months ago with her seventh child. She got up very soon after delivery to attend some of her young children who were suffering with diphtheria, and in running up and down stairs, she felt a very sudden pain in the right side of her abdomen. She was attended by her family physician who afterwards called me in to see the case with him, and he couldn't tell what was the matter with her. Upon laying her upon her back in bed, I could see a prominence of the abdomen which was very flabby. There was no tympanites or anything of that kind, and after examining the tumor in the right side I satisfied myself that there was a complete dislocation of the liver. I could almost outline it, for the abdominal parietes were extremely

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thin and I could get my hand almost between the diaphragm and the liver. Percussion revealed the fact that it was solid and of a liver-like resonance or non-resonance I should say. I can divide the right from the left lobe almost; and I can even feel the gall bladder on pressing my hand strongly underneath. I have never heard or seen anything of the kind before. Pressure is exceedingly painful to her. Every two or three days she will have a good appetite and will eat heartily, and then she will have an attack of dyspnea which is most distressing to behold, and such as I have only seen in an acute case of asthma; her lips being purple, her face pallid and bluish, a cold perspiration all over the body. Now I would like to know what this is if it is not the liver. The abdominal wall is so thin and flabby as to enable me to grasp this tumor in my hand and almost elevate it. Except when she has these attacks of dyspnea she has no other disease that I can discover. The condition of the lungs is probably due to a little bronchitis which even at her best is apparent. There is no effusion of water in the abdominal cavity. There is some slight edema of the legs, especially when she sits up. She cannot always lie in bed because of these attacks of dyspnea. She is compelled to sit up and lean forward. This seems to be the easiest position which she can assume, and this is strange too, as there is tenderness on pressure of the abdomen. I would like to know from the gentlemen present what this condition is and what I can do with it. I cannot imagine any good that can be accomplished by surgical interference, nor do I know anything of a medical nature which will have a materially good effect upon the case. It is one of those cases which properly falls under the domain of general surgery.

Dr. Lemoine.—Is it possible that there are hydatids of the liver?

Dr. Papin.—I think I would have detected them if there were; the abdominal wall is very thin.

Dr. Briggs.—What are the percussion and auscultation sounds, normal or abnormal?

Dr. Papin.—Rather tympanitic above the upper margin of the tumor.

Dr. Briggs.—Is the respiratory murmur very low?

Dr. Papin.—Not more so than normal.

Dr. Briggs.—Is there any intestinal complication?

Dr. Papin.—None whatever: her bowels move, and her appetite, when not suffering from dyspnea, is very good.

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Dr. Briggs.—It is a question what fills the space ordinarily occupied by the liver.

Dr. Papin.—Well, I suppose there is some vacuity from the sounds of percussion.

Dr. Prewitt.—I have never seen a case of dislocated liver.

Dr. Gregory.—There is something very mysterious to my mind relative to a variety of displacements. We have all heard of displacement of the long head of the biceps. I have seen an ulnar nerve displaced. I recollect some years ago a young man came to me who had met with some slight violence which had evidently loosened the connections of the ulnar where it lies between the internal condyle and the olecranon. I could see the nerve, when he flexed the arm, actually move out of its place at the internal condyle. I could take hold of it and produce the peculiar sensation which results at its distribution from irritation of that nerve, and there is no question that there was a dislocation of it. I tried with adhesive plasters to fix it in its place, and put a splint on the forearm, and thought it would be successful, but he came back after a few days, as the splint had become troublesome. I took it off, and the same displacement happened again. I substituted some other method and he went away, and I heard nothing more from him. I had made up my mind that if he visited me again I would take a needle armed with a catgut suture and pass it under the nerve, replacing it, and then tie it onto the common integument and hold it in position in that way, leaving it there until the catgut suture was absorbed. Other tendons of the body are also assumed to be displaced and to go back of the bone; they are mysteries to me. Now we have all read of floating kidneys, and we see cases where we assume that the kidneys are floating; this is also very mysterious. We have also seen floating spleens and, although I am like Dr. Prewitt in never having seen a dislocated liver, I don't see why it might not happen there if it happens in other organs. I can understand that a particular kind of violence would cause the ligaments of the liver to yield.

Dr. Lemoine.—Were the functions of the liver at all disturbed?

Dr. Papin—They don't seem to be; the skin is not at all discolored.

Dr. Prewitt.—I can conceive how the liver as well as the kidney and even the spleen might become displaced by a gradual enlargement and distention and stretching; but the liver being attached as

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it is by ligaments, if those ligaments rupture and the liver is displaced suddenly, as this seems to have been, that is something rather startling to think of. I am somewhat at a loss to understand how it should occur. I do not see what violence would occasion such a tearing of these ligaments. I venture to say that nobody ever saw a floating kidney resulting from sudden violence, a single accident or jar. So, too, the stomach becomes stretched down and the ligaments enlarged. I have seen the stomach low down just above the pelvis, but it does not occur as a result of sudden violence, and it seems to me that the liver would require a great deal of force to tear from its attachments—to strain its attachments to such an extent that it would be entirely displaced, as the doctor's case seems to indicate this has been.

Dr. McPheeters.—Did you use any abdominal bandage over the liver?

Dr. Papin.—She had an abdominal bandage on at the time I saw her, and in examining her I took it off. Then she expressed herself so much relieved by the removal of the pressure, that I did not insist on her putting it back again. The patient has been much more comfortable since the abdominal pressure has been removed.

Dr. Scott.—Dr. Papin's case shows us what a wonderful amount of abuse the human frame will bear; and I am reminded of a case that Dr. Gregory sent me some time ago for flooding. The doctor had seen the patient and prescribed for her, but as the flooding had not ceased he recommended her to me, and she called to see me recently. She is a southern lady, and has recently arrived in St. Louis from one of the southern cities. She said she had been bleeding for ten or twelve days. In order to ascertain the cause of the hemorrhage, I introduced my finger into the vagina, and came upon a substance which was slightly hard and rough, and I immediately suspected that I had to deal with cancer of the uterus. I introduced a Sims' speculum and found in the uterus a sponge tent as large as my thumb. She did not know how long it had been in the uterus, but she had been treated by a physician before she left home, and it requires six or eight days on a steamboat to reach this city, so that this tent had been in the uterus for nine or ten days. Of course it smelt horrible. I suppose it had been in the uterus more than ten days. Dr. Coles told a story of putting a tent in a woman, where it remained for ten days before he could reach it again to take it out, and the patient said that while the tent was in

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position she was in perfect health, never having been in better health in her life.

SOCIETY PROCEEDINGS.

ST. LOUIS MEDICO CHIRURGICAL SOCIETY.

Stated Meeting, June 29, 1886. Dr. Lemoine in the chair.

REFLEX PAIN.

Dr. Todd said frequently patients come with pain—and very considerable pain too, in the ear, generally confined to one ear, and upon examination there is no trouble found in the ear. Of course in such a case the proper thing to do is to examine the mouth; and in all cases of pain about the ear, the mouth should be examined just as much as the ear itself.

A very intelligent gentlemen, occupying a very important position as a city officer, came to him for treatment for pain in the ear. He examined him and could find nothing the matter with the ear. He examined the mouth, and found one of the molar teeth on the same side with the painful ear which had been filled, and on striking it the tooth was sensitive. The doctor told him that in his opinion he did not have ear-ache at all, but tooth-ache, and that the pain in the ear was reflex, and to make sure that he wouldn't go way thinking that he did not know his business, he went down with him to a dentist and had him examine the tooth. He removed the filling and immediataly gas escaped, and the patient was relieved of the pain in the ear. This is an illustration of the fact that the physician should have a good idea of dental troubles. The profession neglects them altogether too much and trusts too much to the dentists.

Dr. G. A. Moses presented a specimen, the interest of which lay rather in the history of the case than in the nature of the specimen itself. The history was as follows: In October last a patient presented herself, complaining of having had at occasional irregular intervals for several years, very profuse menstruation. She was forty-two years of age, had had two children, the youngest of which was twelve years old. Since the birth of that child her health had been, as a general rule good, with the exception

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of these occasional profuse menstrual discharges. About six or eight weeks before, the discharge was so profuse as to amount to a severe hemorrhage, confining her to her bed and requiring the attention of a physician for some time. At the next menstrual epoch there was no appearance of menstruation whatever, and three weeks had then passed since the proper period. Upon examination Dr. M. found a uterine tumor extending to the umbilicus, about four inches across, quite filling up the pelvis, hard, resistant, having the appearance of an intramural tumor. The organ was movable to a limited degree; but the history of the arrest of menstruation and at the same time the peculiar appearance of the cervix suggested the possibility of pregnancy, notwithstanding so many years had passed of comparative sterility. With this provisional diagnosis she was sent home, not living in the city. In the latter part of February, she stated that she suffered intense pain, had great difficulty of locomotion; the tumor had increased very greatly in size, so that she said she felt as if she were almost at full term of pregnancy. She was satisfied she was pregnant, having quickened and felt the ordinary symptoms of pregnancy.

She suffered so much and was so anxious about herself that she came to the city about two months ago or a little over. She was evidently pregnant, and, as she stated, so far as her appearance was concerned, she must be about the eighth month or a little more than that perhaps. Respiration was very much impeded; pressure was very severe, felt particularly upon the pelvic parts; there was edema of the extremities to a very marked degree, and she suffered from indigestion. She was anemic, and the urine was scanty, but seemed to be normal. She had also for some weeks past had periodic pains, and upon examination with the abdomen exposed, one could easily see contractile efforts of the uterus from time to time, accompanied by quite severe pain, so much so that it was her habit to take morphine from to time during the day for relief.

Being satisfied of the existence of pregnancy as well as a tumor, which was distinctly felt. Hopes were entertained that her condition would be ameliorated upon the birth of the child. Premature confinement finally resulted in the birth of a child at about six and a half months, which lived for perhaps an hour. The labor was not exceptionally severe in any way, except that the pains of contraction were very intense being aggravated, no doubt, by the

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presence of the neoplasm. The labor itself was normal; there was some difficulty in the extrusion of the placenta, from the fact that the tumor impeded the symmetrical contraction of the uterus, pressing it into the form of a cylinder, grasping the placenta and preventing its delivery. The doctor removed it, however, without much trouble and completely. Several weeks passed after the delivery without anything abnormal occurring. There was no hemorrhage, nor did the hemorrhage after labor amount to anything. The size of the tube had gradually diminished — that is the size of the uterine globe diminished and with it the tumor; involution seemed to be going on fairly, and he had some hopes of the result which occasionally happens under such circumstances: the gradual diminution in size of the tumor; and under these circumstances it seemed to me better to wait until the period of involution had passed before attempting to do anything with the tumor. At the fifth week after labor the patient was suddenly taken with a violent hemorrhage, coming on without any premonition whatever; the gush was so violent that the tamponade was used. When this was removed, the hemorrhage still continuing very freely, the uterus was tamponed with sponge tents, and the vagina completely filled. When this was removed the uterus was sufficiently dilated to make an examination of the condition of the interior of the organ easy. This was made and the tumor was found to include the posterior portion of the uterine wall to the left, and seemed to be deeply imbedded in the tissues, scarcely protruding at all, certainly not to any marked extent. Under these circumstances the uterus was simply swabbed out with a styptic solution, first with alum, and the tamponade again used. This tamponading was necessary, and was followed afterwards with the application of almost pure bichloride of iron, simply diluting it with a small quantity of glycerine to prevent unpleasant clotting, which so frequently takes place. The hemorrhage was controlled by the tampon for about two weeks. At the end of that time the tendency to hemorrhage seemed to disappear. It also appeared that the tumor was being gradually extruded within the cavity, and the propriety of surgical interference was discussed. But before any steps could be taken, no doubt the result of the uterine efforts which had been excited to a large extent by the subcutaneous injections of ergot, for a week or ten days, a process of sloughing commenced, sloughs and shreds were discharged from

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the uterus, and in the course of two or three days masses of soft tissue could be felt within the cervix. The uterus was washed out daily with antiseptic solutions, and iodoform applied to the cavity, both on cotton and in the form of pencils. The use of the ergot was persevered in with stimulants according to necessity. The condition of the stomach was such that feeding was almost impossible; nutritious food could be administered only in small quantities, and at one time it looked as if we would have to depend upon the rectum for nutrition as well as medication. From day to day the uterus was washed out and the parts excised or twisted off as they softened, and the tumor was dragged down as much as possible without causing great pain, the condition of the patient being such as not to warrant any active operative violence. She had already lost so much blood, and was in such a debilitated condition that only such measures were necessary to save her life were permissible, so we waited and watched the case, hoping that the tumor would finally be placed in such a position that it could be removed. Six or eight days ago there had been a good deal of pain induced by the ergot which was again used, and within the cervix, which had become somewhat contracted from the effect of the tamponing, a body seemed accessible to an instrument. However, as it was late in the evening and he had nothing but a pair of dressing forceps, he simply pulled down the tumor and removed a portion of it; that night the mass was extruded, and patient is now convalescing and doing well.

The tumor was a fibromyoma, most flat, not at all ovoid, and covered with almost pedunculated myomatous masses.

It was a very serious question from day to day whether instrumental operative assistance was not called for, but the condition of the patient was extremely bad; there was evidently some septic influence present; the temperature ran as high as 103° and 103½°, on one occasion 104°. A diarrhea came on which continued until the tumor had been expelled and for twenty-four hours afterwards which nothing restrained; the vomiting was almost constant, at least there was nausea making it necessary from time to time to give morphine, or rather morphine and atropine, which answered a better purpose, so that any active measures were withheld; and it was a difficult matter to keep one's hands off a case of this sort where everything seemed to present itself in such position that the tumor could have been seized and removed. But the fear of hemorrhage

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and increase of the septicemia which seemed probable in case it was not entirely removed, was such as to induce us to withhold interference. Dr. Gregory saw the case upon one or two occasions and fully concurred in the view as to treatment. The case belongs to a class not at all common. During the progress of this case a similar case was reported in the medical journals in which the same treatment was carried to the same successful termination.

Dr. Gregory said he was very proud of the promised successful termination of this case, not because he encouraged Dr. Moses to go slowly, but proud for the sake of old surgery; because he knew the spirit of new surgery. Sometimes at night he would toss in his bed, because of the responsibility of cases in which he was satisfied that new surgery would say, "Oh go ahead, go ahead; don't stop; push on; do something that is decided; it won't do to wait upon nature's slow and uncertain processes, but you must act." This was just such a case as was best calculated to draw upon this so-called aggressive surgery; and he felt proud for the sake of the great surgical idea which possessed the profession for hundreds of years—the old idea of waiting. He was glad to have so young a man as Dr. Moses concur with him in regard to waiting. This case did not justify any active interference. The woman was safer in the hands of the processes which had brought her into existence, which had preserved her life and carried her through so many trials and exigencies and emergencies incident to all life. He said he went to bed the night before thinking of a case he was called to about five o'clock, a carpenter who in falling a short distance struck his belly against the round of a ladder three days ago. He was taken to his home; a physician saw him and gave him morphine probably. Yesterday the first physician having neglected the case another physician was called in, and he asked Dr. G. to see the case with him. The patient had been given a half grain of morphine hypodermically. He had a pulse of 120, was without pain; hopeful; temperature 101°; his abdomen somewhat tumid and there was evidently peritonitis; the man's peril was extreme; the question was is this a case to cut open; is this a case for laparotomy; pulling out all those folds of bowel and looking them over and running the risk of not being able to get them back again? Twenty years ago he would have gone to bed and slept all night, ten years ago he would have done so: but when young surgery says "this is a case for you to go ahead and cut into" he began to have scruples. He asked himself

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if it was because he had no courage. He said to the poor wife and the doctor that he thought the man's chances for recovery and dying were about equal, and the question was whether we should perform an operation. Had he seen the man an hour before, previous to the hypodermic injection of morphia, he might have felt more inclined to perform an operation, but as the man was under the influence of the morphine and resting comparatively quiet, the doctor agreed with him that they would wait until morning. The next morning they found that the man had slept pretty nearly all night, but his abdomen was more tumid and his pulse not more than 120, but it was smaller, and he was cold; and looked as if he was going to die. At six o'clock he saw him again, and said to the wife, there was a shadow of a chance that he might recover if a surgical operation were performed. It was decided that she should present the matter to her husband in her own way, and with a full comprehension on her part of the uncertainty of surgical interference. She returned and said her husband was perfectly willing to have them operate if they thought best. There was an evident inclination toward an operation and he consented to perform the operation. There was no fecal odor in the abdominal cavity, and he could see nothing; but in handling the intestines a rent appeared. There were places where softening was distinctly going on, places that were covered with a dark gray lymph and looked as if the fingers would go through them. Now whether this rent was there before, or whether in handling the intestines the rent was occasioned he did not know, but fecal matter and gas came out with a hiss which could be heard in any part of the room. The intestines were crowded back into the abdomen and the opening was sewed up. At five o'clock there was scarcely any pulse, but he had just had an injection of morphine and was disposed to sleep.

He thinks there is no class of men who need sympathy more than those who have the responsibility of surgical cases, because we are now in the midst of a transition period, as it were; we have no definite fixed ideas in regard to the assumption of grave responsibilities. If we hesitate about making a surgical operation, there is a heavy pressure to urge us on; and if we do operate we may regret it; that is about the feeling. When this rent was found, it was sewed up; but the question arose, if there was a rent there, was it not in contact with the wall of the abdomen or an adjacent portion of intestine; and then he reflected upon the equable pressure the

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like of which is unknown except in a visceral cavity. He thought that an intestine might have a wound in it as big as the end of his little finger or even larger, and yet the relationship of the parts be so precise and the balance of pressure so perfect that no extravasation would take place. In this case there was no appearance of extravasation, there was no odor; but after we cut into the abdomen of course this uniformity of pressure is disturbed; and if there is a little rent in the intestine of course it begins to pour its contents into the cavity. He believed that many a poor sufferer had recovered from a rent in the intestines which had been stopped simply by contact of the wounded part with the parietes of the abdomen, or with a contiguous coil of intestine; and the inflammatory process coming in and stopping up the rent.

NATURE'S RESTORATIVE POWER.

Dr. Prewitt presented a patient illustrating another phase of nature's reparative force. In October, 1883, this boy, then seven years old, was run over by a wagon, the wheel passing obliquely over his leg, tearing the tissues and laying open the bone for some distance. Two physicians saw him and proposed amputating the limb, which was a very judicious suggestion from what Dr. Prewitt learned and afterwards saw. According to modern rules of surgery, it would probably have been the proper procedure. It was several weeks after this before Dr. Prewitt saw the patient. He told the friends that the best thing to do would be to cut the leg off, but that the better time to do it would be after a little while, because there was then a little reparative action going on and the boy was beginning to eat, and it would be well to build him up somewhat before the amputation was performed. The soft tissues had sloughed away nearly to the groin, laying bare a very large portion of the bone; the leg was flexed, and it was evident that if he should recover with the leg hanging on, it would be merely a useless limb. The upper extremity of the tibia came out and then at least four and a half inches of the tibia necrosed off. He kept the limb on a posterior interrupted splint so as to keep it as nearly straight as possible and dressed it antiseptically. As a result, the leg is comparatively straight. There is, of course, anchylosis of the knee joint. When first seen, the boy was extremely emaciated, almost worn out, but he gradually improved strength and got an appetite. There was a very large space of denuded surface to be

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cicatrized which required quite a long time. Sponge grafting was tried once or twice, but did not do well. Then he was lost sight of for some months. Finally he came up to the college clinic some months since, and at that time a considerable portion was healed over, the reparative process seemed to have stopped at that point for a length of time, and there was an area of perhaps four inches by three that was not healed, and nature seemed inadequate to the task of covering that with cicatricial tissue. Skin grafts were applied and took beautifully with one or two exceptions. Now the boy has a fairly good leg. It has taken a long time to repair, but the boy had nothing to do but wait on it. Of course a man could not wait two or three or four years for a leg to get well. The case simply shows what nature can accomplish under some circumstances.

PASTEUR'S INOCULATIONS FOR RABIES.

Dr. Maughs said that while at Paris he visited Monsieur Pasteur. He thinks the vast amount of attention that has been heaped upon Monsieur Pasteur has turned his head so that he realizes that he is of quite as much importance as he really is. Any foreign physician wishing to see Monsieur Pasteur must get a letter from his minister or plenipotentiary. He obtained access to Monsieur Pasteur through an introduction by an old friend Dr. Edward Warren, Bey, an American physician in Paris, a very distinguished gentleman, who during the late war went over to Egypt, where he was knighted; he was not acquainted with Monsieur Pasteur but wrote to his friend Dr. Charcot, a colleague of Pasteur, who introduced Dr. Maughs. He witnessed Pasteur's treatment in a hundred cases of mad-dog bite. The treatment consists in an injection into the cellular tissue in the lower anterior wall of the abdomen of a dram, or nearly so, in the adult, and half a dram in children of a fluid of a milky color. Monsieur Pasteur does not inject the fluid himself. Of course it is not known what the treatment is, except that it is innocuous or comparatively so; and yet it is said to prevent rabies. Now this may be so, but it is not proven. The French are a peculiar people. They are carried away with anything that is French; and especially if it originates in Paris, it is very readily seized upon and taken for granted. It is argued that it ought to be true because it is French—because a Frenchman discovered it, and because the Frenchman lives in Paris, therefore it ought to be tr ue

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and they very readily accept it. The French are the greatest liars on the earth; they tell lies and know they lie, everybody knows they are lying, but they are too polite to say so. So that these people accept very readily M. Pasteur's statements. The College of Physicians and Surgeons of London sent out a committee to investigate the matter, but they were not allowed to investigate, and M. Pasteur was asked to establish hospitals in New York and London, but he did not do it. He has patients from all parts of the world. He has been knighted by the Czar of Russia, and a dozen other kingdoms have knighted him: he has been covered with stars by almost all the powers and potentates in Europe and learned societies. But it has not been proven that he really has a cure; it may be so; it is very probable that there is something in it; but it has not been proven. Dogs like men have fits and go crazy; become cranky; and as the natural tendency of a dog is to bite when sane, when crazy he will bite his friends, as when sober or sane he will bite his enemies. There is not one dog in ten that is supposed to be mad that is really so, and there is not one person in ten who are bitten by a mad dog who gets hydrophobia, as they are often bitten through the clothing, which protects the flesh from the saliva. It is also true of the snake's bite; if bitten through the clothing, the person may escape, whereas if bitten on a part which is not so protected, it will prove fatal. So there may be a hundred persons bitten by dogs supposed to be mad, and one or two actually take hydrophobia. Whilst Dr. Maughs was in Paris, there were sent there nineteen persons bitten by a mad wolf; now instead of biting in a doubtful and hesitating manner as a dog would, the rabid wolf endeavored to tear these persons to pieces; that is its nature; and probably in addition to those who were sent to Pasteur, there were others who were to torn to pieces and destroyed. In those who were sent to Paris muscles were ripped open and torn from the limbs, and one trachea was torn open. Out of these nineteen patients, six or seven died at Paris, and one or two have died since they returned to Russia. Pasteur was a little taken aback at the number of fatal cases; but he explained it by saying that the bite of a rabid wolf has a different effect from that of a mad dog. It is possible however that the large percentage of deaths was due to the fact that the wolf being more ferocious than an ordinary dog, tore the flesh and made inoculation by the poison more certain.

Now the question is, what is the treatment. Nobody knows

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this, as M. Pasteur has kept that a secret. This is thought by some not to be in keeping with medical ethics, but I can scarcely blame Pasteur, for perhaps it is the wise course, because his culture is not yet perfected, and if he published it for the general good and everybody experimented with it, we know that it would be brought into disrepute on account of imperfect experiments and incompetent experimenters; so that although it seems unprofessional, it is in reality not so. I do not blame him for not bringing it out until he has brought it to perfection. So that while it is not proven, I hope it is true, and that he is on the right track; if so, it will make him the most distinguished man in the world.

SPECULUM FROM POMPEII.

Dr. Maughs referred to a translation from a compilation of Aëtius, which he presented at the Medical Society a couple of years ago, and that at one place that author describes a speculum in such a manner as to give a very good idea of the instrument. When he went to Naples to the Museum, he found one of the instruments used by the contempores of Hippocrates, and he had a facsimile made from this old instrument. The original was found in the ruins of Pompeii and preserved in the museum. This instrument is at least two thousand years old, and may be the instrument Archigenes himself used. In making this facsimile they not only reproduced the instrument perfectly, but they put the rust upon it, so that any gentleman would recognize that the instrument is at least two thousand years old. The patient was placed on her back in front of a window, and this instrument introduced into the vagina, being closed while being introduced, and then the screw was turned. The assistant holds the instrument while the surgeon turns the screw, which is turned rapidly and the vagina rapidly dilated. This instrument being two thousand years old and a little rusty, works a little hard, but it is evident that the vagina can be opened very readily so as to make any application desired. If there was nothing better in the world to-day, this instrument would answer a very admirable purpose. There are a good many old surgical instruments at the Naples Museum, and if the surgeon had nothing better, he could get along very well with them; there are scalpels, instruments for the removal of stone, delicate little scalpels and hooks and surgical instruments of all kinds.

COLOTOMY.

Dr. Funkhouser read a paper on Colotomy (vid. p. 196).

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Dr. Funkhouser said that when he performed the first operation he had some doubt with regard to making a laparotomy, but hoped to give some relief. The fact was recognized that there were adhesions. The question had arisen since whether it would not have been better to perform colotomy. He had told her that eventually, if this operation was not successful, colotomy would be the only thing that would relieve her. The cancer was growing, and sooner or later it would implicate not only the rectum but also the bladder. He had expected to find a larger body on opening the abdomen, because the sound had passed in further than the length of an ordinary sized uterus would allow. He did not know whether it went into one of the Fallopian tubes or somewhere else; it might have gone into the rectum, but that occurred six months before there was any indication of fistula existing between the rectum and the body of the uterus.

Dr. Gregory asked whether the contents of the intestines were discharged at the artificial opening, or if a portion found its way into the rectum.

Dr. Funkhouser answered that for four days the material passed out through the artificial anus, and then some bloody matter and feces passed out through the natural way, and also through the vagina, most of the material passing out through the vagina. That stopped for thirty-six hours and then there was some discharge again; this recurred off and on; there was no pain.

Dr. Gregory thought Mr. Bryant's suggestion a good one, viz., to draw out the intestine sufficiently to prevent any passage in the direction of the lower intestine.

Dr. Bryson said it always seemed to him that colotomy was an attempt at drainage—an attempt to relieve a portion of the bowel of its physiological function, which it was unable to do in a proper manner, the doing of which caused the irritation. He thought that in very few of the operations that have been done had the drainage been complete—as complete, for instance, as is the drainage of the urethra after perineal urethrotomy, or as complete as it is in the bladder after cystotomy, so that the idea suggested by Dr. Gregory would seem to me a very apt one—an attempt to divert the feces as much as possible from the rectum. In some cases, however, that would not be well, for the reason that occasionally the operation is done in the hope of curing a disease of the rectum and then closing the artificial opening. Referring to the dangers and accidents of

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the operation, he said that in all the cases which he had seen recorded where the peritoneum had been opened, it was in front and not behind. He had once seen an excellent surgeon open the anterior peritoneum. He recognized at once what it was, and it takes a good surgeon to recognize it. He sewed it, up and no evil result occurred. This was a case of cancer of the uterus, and the operation was done as a palliative measure.

Anatomically the ascending colon has more space posteriorly uncovered than the descending colon. The ascending colon lies close to the duodenum, and though there is, probably, no better colonotomist in the world, nor one who has had more experience than Mr. Allingham, of St. Mark's Hospital, London, he calls attention in his work on disease of the rectum and lower bowel, to the fact that he once opened the duodenum for the ascending colon on the right side. There was an enlargement of the liver, and the colon was pushed down and out of the way, and he came upon what he supposed was the ascending colon, having its somewhat greenish appearance, and he opened it, and some four hours afterwards he recognized the error he had committed by the fact that there was a large outflow of bile. So that, while the operation is as a rule successful, still errors can be made.

There is often great difficulty in inducing patients to submit to this operation. The question in regard to the point at which the peritoneum is to be opened, if opened at all, is an important one in laying out or devising the operation. He had followed the direction of Allingham, to make the incision at least an inch posterior to a point midway between the anterior and posterior superior spinous processes of the ilium. In this way he had always succeeded in hitting the colon at a point where it is uncovered by peritoneum. But even following these directions, where there is much distention or adhesions, which so frequently form with stricture of the rectum, drawing aside and displacing the parts, the most skilful colonotomist could go astray. To take the kidney as a line and mark from which to proceed in the operation, would be just as inefficient as any other fixed point. The gastric disturbances that accompany rectal diseases are generally spoken of in the works on surgery as dyspeptic symptoms. He thought it would be better to call them symptoms of indigestion, fermentation of food in the stomach and bowel. Many of these cases have alternating periods of constipation and diarrhea. Diarrhea in case of stricture of the rectum es-

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pecially occurs from pressure outside the rectum, inflammation, etc., the rectum encroaching upon other organs. This diarrhea, although the bowel is enormously overloaded, may result almost in the collapse of the patient. It consists of discharges of thin watery mucus. In these cases of ulceration or disease of the rectum, in which we have long constipation and diarrhea, we have this faulty digestion, fermentation of food, sometimes even going to the extent of vomiting blood, very intense retching and straining; the patient is apt to be feverish, the appetite is capricious, sometimes being entirely wanting for a long time. In many of these cases purgatives are given, and, curious to say, the patients have a craving for purgatives. In those cases it would be better to empty the bowels gradually, and in some cases it is better to give opiates than purgatives; these diarrheas are always to be checked with opiates. He wouldn't hesitate to give them, even while using soothing enemata, intending to empty the bowel.

Dr. Gregory said that Dr. Bryson had said that in determining the site for reaching the bowel he measured at least an inch behind the middle point between the two superior processes of the ilium to find the point at which to make his incision. He, himself, had always thought it was a half inch. If wrong he wished to be corrected.

Dr. Bryson didn't recollect exactly the directions of Dr. Allingham, whether an inch or half an inch. He had been accustomed to follow his directions, but felt quite certain that he had made the incision fully an inch behind the middle of the line between the processes.

Dr. Gregory said there was a little maneuvre that is of service in these cases, which had not been mentioned during the discussion; that is when the bowel is exposed, it is a common practice to inject air into the colon after the parts are sufficiently exposed to seize the bowels. He had seen this maneuvre practised several times, and I thought it an excellent idea—a very important aid to the surgeon where the bowel is not full.

Dr. Prewitt thought that Dr. Funkhouser had not laid sufficient stress upon the importance of an early operation. His own case indicated the necessity of that. Ulceration had taken place, making an opening into the uterus or vagina. Wherever there is an obstruction, there is a tendency to ulceration behind it, whether in the urethra or in the esophagus. If the colotomy had been per-

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formed a year sooner, there would have been a great advantage, the ulceration would have been prevented. He had a case some years ago of the same kind. The patient had suffered a long time with cancer of the rectum. Colotomy gave great relief. She got up and went about and was wonderfully improved, when an ulceration suddenly broke through above the constriction, and she died from peritonitis. Had the operation been done earlier this ulceration would not have occurred. The ulceration did not simply result from the progress of the disease, but from the constant irritation and pressure to force material through, and the best and surest way to prevent that would be by colotomy. Besides the immense relief which it gives the patient in relieving the parts of the products of the inflammation, it gives relief by permitting the free evacuation of the bowels.

ST. LOUIS MEDICAL SOCIETY.

Stated Meeting May 8, The President, Dr. Gregory, in the chair.

PYO-PERICARDITIS.

Dr. Hulbert presented a specimen illustrating pyo-pericarditis. From the pericardial sac was removed post-mortem somewhat more than a pint of pus. This condition had not been diagnosed ante-mortem, physical signs of a pleuro-pneumonia having engaged the doctor's attention. The pulse had been weak, and varied between 120 and 160, with a temperature never higher than 102° and usually below 100°, and yet the patient did not appear debilitated. After a few days erysipelas of the face supervened, when the temperature mounted to 103.2°. The whole face and scalp became involved. On the twelfth day of the erysipelas, she appeared to be doing well, but suddenly died inside of 40 minutes after having ordered a hearty breakfast. With other treatment the doctor had given one-fifth of a grain of strychnia hypodermically three times daily, whenever the heart appeared to be failing. Such treatment had been of great use in his hands in other cases of heart failure. The doctor thought that the suppurative stage of the pericarditis had not occurred until after the invasion of the erysipelas.

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Dr. A. Green thought it a case of pyemic infection, but did not suggest the channels of invasion.

Dr. Bremer explained that in ulcerative endocarditis, in which Klebs has shown that a special micrococcus is the causative agent, other organs, especially the brain might be implicated through the medium of the circulation, whereas in the case presented by Dr. Hulbert of suppurative pericarditis, the micro-organisms, in order to infect another organ must travel through the lymph channels. In the present case he thought the pericarditis primarily malignant, and the erysipelas consequent on the migration of micro-organisms from the pericardium to the face, which in this case had proven congenial soil. He thought that there were various kinds of erysipelas dependent on various kinds of micro-organisms. With regard to pleuro-pneumonia, it had been fully demonstrated to be a bacteric affection, the pneumococcus being found alike in the pneumonic lungs of man and beast, and its pure culture inoculated under proper circumstances would produce pneumonia. The pneumococcus cannot be mistaken, especially in the culture fluid where the colonies grow in a peculiar manner, resembling a nail, whence the name nail culture. Just as an expert at a distance can tell of what trees a forest is composed, from the grouping of the trees, so the microscopist can tell the nature of bacteria from the method in which the colonies group, before he can distinguish an individual member of the colony.

Dr. Dean endorsed Dr. Bremer's remarks concerning the individuality of bacteria, and said that no expert would confuse the pneumo coccus with any other microbe.

Dr. Wm. Johnston thought that Salisbury had not been given due credit for his pioneer work in this direction.

Dr. Dean explained that it was not in the direction of bacteriology that Salisbury had distinguished himself, and that he was not considered an authority in this domain by microscopists. His discoveries were in the field of fungi and moulds, such as the aspergillus growths in the ear and so on. He stated the cause of malarial fever, for instance, but did not demonstrate it.

Dr. Bremer agreed with Dr. Dean that Salisbury had made assertions in bacteriology but had not made experiments to prove them. He was a great credit to American medicine only inasmuch as he took up the subject, and did forecast future events. He himself had proved or demonstrated nothing in the field of bacteriol-

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ogy. Even at present there was no settled fact concerning the nature of the microbe of malaria.

Dr. A. Green thought with Dr. Johnston that some micro-organisms were affected by climate and other conditions, so that they produced different kinds of the same disease at different seasons, as for instance, where pernicious malarial fever had in certain districts replaced simple intermittents.

Dr. Hulbert, in answer to a question, replied that he had often given hypodermically one-tenth to one-twentieth grain strychnia three times daily for several days without toxic effect.

Dr. Prewitt could not agree with Dr. Bremer, theoretically speaking, that the same organism which had produced the suppurative pericarditis could migrate and produce erysipelas of the face. He would rather believe the opposite, or that each disease had its own specific organism. The microscopists were but on the threshold of discovery, and nothing is now believed that is not demonstrated. It was possible the same organism might in different subjects produce different diseases. Puerperal fever was not uncommon where erysipelas prevailed, and Stokes had proved that an intercurrent pneumonia often cut short a typhoid fever in the same individual, whence an inference that the microbes had left the bowel and spent their force in the lung, producing typhoid fever in the one case and pneumonia in the other.

Stated Meeting, May 15.

WOUNDS OF INTESTINE—LAPAROTOMY.

Dr. Lutz presented a specimen of gun-shot wound of intestine. May 9, G. W. aged 21, was shot in the abdomen, the weapon being a 22 calibre rifle, the ball entering one inch to the right and three inches below the umbilicus. Dr. Lutz was called in consultation several hours afterwards, and diagnosed penetrating wound of the abdomen with intestinal injury. On laparotomy, the jejunum presented in the incision, exhibiting a wound a quarter of an inch in diameter, from which the contents of the bowel were escaping. Five more wounds were found in the jejunum and four in the mesentery. All were closed with the Lembert suture, the cavity of the abdomen cleansed, after having tied a small artery in the mesentery, and the wound closed with continuous suture and covered with iodoform. His temperature gradually rose and he died

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seventy-five hours after receipt of the injury and sixty-five hours after the operation.

The operation was found to have accomplished its purpose, the intestines retaining air and water perfectly, but nevertheless about two ounces of sero-sanguinolent fluid were found in the cavity. The intestines were agglutinated.

Dr. Lutz maintained the justifiability of laparotomy in penetrating wounds of the abdomen, where evidence exists of visceral wound, the best argument being that such cases almost invariably die when left to opium and nature, whereas surgery had saved many lives.

Dr. Lutz presented a second specimen with the following history: A young man after rolling a heavy ball at ten pins, felt a sudden severe pain above the pubis. He went home, but did not send for a physician for thirty-six hours, which the severity of the pain then compelled. Dr. Lutz saw the patient first on the fifth day. He found the penis immensely swollen with several gangrenous spots, which, on incision, yielded foul pus. The abdomen was tympanitic and very tender, pulse 110 and temperature 103°. A rubber catheter drew off an ounce of dark fetid urine. Death ensued in thirty-six hours afterwards. At the autopsy, the lower end of the omentum was found adherent to the peritoneum over the bladder, deeply congested and about to become gangrenous. Between the abdominal wall and the bladder, where the latter is uncovered by peritoneum, was found a large foul abscess, implicating the tissue about the neck. Dr. Lutz called attention to the fact that though the walls of the bladder were greatly swollen and inflamed, with deeply congested spots on the inner surface, no rupture in it or in the urethra or bladder could be found, as might have been suspected. The cystitis was caused in some way by the immense strain put upon a full bladder, the inflammation extending perhaps from the recti muscles, which were found much congested.

Dr. Dean had seen abscesses in this region from blows on a full bladder, and even from strains, as well as from vesical rupture. He thought, however, that some infiltration or osmosis of urine always occurred. As to laparotomy in gun-shot wounds of the abdomen, he would not perform it if called to a case several days after the injury, if there existed no urgent symptoms, but would do so if he saw the case at once after the injury, and there existed evidence of injury to the bowel. He thought it must be very rare

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that one recovered from a penetrating gun-shot wound of the intestine, without surgical interference.

Dr. Meisenbach said we must distinguish between incised and crushing or lacerated wounds penetrating the abdomen, it being more probable in a gun-shot wound that the gut was wounded, and laparotomy is indicated to make a diagnosis, to arrest hemorrhage, to prevent further escape of the contents of the intestine.

Dr. Lutz thought that even in small incised wounds of the abdomen, it was good surgery to enlarge the wound and ascertain if the bowel were wounded. He had seen several cases where such wounds had been sutured without any attempt to ascertain the visceral condition, and when on post-mortem an incised gut was found with fecal extravasation. The size of an incision in laparotomy made no difference in the danger—it was therefore not adding to the patient's danger to enlarge a small incised wound, whereas on the other hand, by suturing a wounded gut, peritonitis from fecal extravasation might be prevented, hemorrhage arrested, or the peritoneal cavity cleaned, if found necessary. Where no wound already exists, it is preferable to make laparotomy in the median line, for the reason that it gives the best view of the abdominal contents.

Dr. McPheeters mentioned a case (already published) where the bowels protruded after an incised wound. The intestine was wounded in two places. The portion of the gut including these wounds was completely excised under the most unfavorable circumstances without antiseptic precautions, and the patient recovered.

THE PRESIDENT agreed with Dr. Lutz in the propriety of laparotomy in such a case as the gunshot wound he had reported. One should be guided entirely by the nature of the accident and the urgency of the symptoms. Some had reported cases where they had operated where there existed no urgent symptoms, and yet had found a lacerated intestine. Such reports required further confirmation. His position with regard to them was the same as that of Dr. Dean, whilst with regard to incised wounds he held the same opinion as expressed by Dr. Lutz.

Stated Meeting, May 22nd.

PYLORIC STENOSIS.

Dr. Wesseler showed a stomach with pyloric stricture. During life the man, aged 30, presented but one symptom to indicate or-

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ganic disease—namely, regurgitation of food. Long continued malaria had assisted in producing emaciation. The doctor had been unable to make a diagnosis. He now asked for information as to the cause of the stricture.

Dr. Fry called attention to the fact that there existed two quite large cicatrices at the pyloric valve, the remains of healed ulcers. These in addition to the connective tissue thickening had caused the stricture.

Dr. Dean remarked that infiltrations, cancerous and inflammatory, are more liable to occur at the orifices of the body where two kinds of epithelium meet. In this case it is illustrated, as the epithelium of the duodenum and of this portion of the stomach are different.

Drs. Hurt and *Green* thought that such cases when diagnosed, presented a splendid field for surgery. Such cases justified laparotomy for purposes of diagnosis and further operative procedure.

Dr. Lutz spoke at length of the different kinds of pyloric stricture and of the very great difficulties frequently attending their diagnosis. He thought there existed a too ready willingness to perform laparotomy amongst surgeons in cases of this kind. He considered laparotomy a dangerous operation, and in cases like the one presented, he would submit to the patient's wishes. Pyloric resection was easy enough where there existed no adhesions. In a case like Dr. Wesseler's, if one could but see the stomach as one did post-mortem, the course of the surgeon was plain—namely, to perform gastrostomy and dilate the stricture, but diagnosis was so difficult, and laparotomy so dangerous, and the conditions found in this organ so rarely amenable to surgery that one should hesitate when discussing laparotomy for diagnosis or treatment at this portion of the digestive tract.

THE PRESIDENT thought the difficulties in the way of Dr. Wesseler's case insurmountable, and expectant treatment the proper one. He doubted very much whether, even if the condition had been known, surgery could have accomplished much for the man. He would not recommend laparotomy under the circumstances.

WOUNDS OF ABDOMEN.

Dr. Dean related two cases, one illustrating an incised and the other a gun-shot wound of the abdomen. In the former case a piece of omentum protruded. He enlarged the wound and searched

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for visceral injury, but finding none, carefully cleansed the parts, and returning the omentum, sutured the abdominal walls very carefully. Recovery ensued. In the other case a boy was shot, from a distance of twenty feet, with a 22 calibre target rifle, which had sufficient force, as subsequently proven, to penetrate a pine board, one and seven-eighths inches in thickness. On the following day Dr. Dean, on account of urgent symptoms, made an exploratory incision, an inch long, in the linea alba, one half inch from the bullet wound. Nothing was found abnormal except a little blood. It was, therefore, concluded best to wait. On the following day he died, when it was found that the bullet had penetrated the anterior lobe of the liver, the mesentery, transverse colon and ascending colon, and was found beneath the lower end of the right kidney, where blood and fecal matter were also found. Dr. Dean did not think that even had the incision during life been made the whole length of the abdomen, the exact condition of affairs could have been learned. These cases illustrated the fact that one must decide the different steps to be pursued according to the individual case. He had sometimes found it very difficult to approximate abdominal incisions, especially posteriorly towards the lumbar fascia.

Stated Meeting, May 29, 1886.

ANEURISM OF ABDOMINAL AORTA.

Dr. Dean presented a specimen with the history usually incident to aneurism of the abdominal aorta. At the autopsy the left kidney was found on a line with the left border of the sternum. In the right thorax was found 1000 cc. of blood and serum, and the same amount of blood clot in a single mass. A rough, ragged opening about four centimetres in diameter existed in the diaphragm, below which, close to the spine, was a large aneurism, nearly filled with hard laminated clot. The psoas muscles were completely infiltrated with blood. The body of the eleventh dorsal vertebra was absorbed, and a large portion of the second and third lumbar. The celiac axis was enlarged to the diameter of the aorta and formed a pouch about five cm. in diameter, much of which projected into the aorta, which latter was so constricted below the axis that only the little finger could be introduced. Only three pairs of lumbar arteries could be found. On passing a probe through the gastric, hepatic and splenic arteries, no open-

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ing into the celiac axis could be found. On viewing the interior of the latter, its walls were found uniform, hard and glistening, with a laminated clot, which closed the apertures of the arteries in question, so that the liver, spleen and stomach were completely cut off from arterial supply.

ANEURISM OF CAROTID.

Dr. Hulbert presented a specimen and related a case as follows, the history of the patient whilst in the city hospital being obtained through Dr. Dean: A girl aged nineteen was admitted to the hospital with a severe pharyngitis, which shortly proved to be that of scarlatina. A hard, inflammatory swelling appeared in the region of right parotid, very painful. On one occasion she lost a pint of blood from the neighborhood of the right tonsil. In two weeks desquamation having ceased, she was permitted, under protest, to leave the hospital. The swelling at this time had much diminished. On the following day she caught cold and was admitted to the Female Hospital under care of Dr. Hulbert, who made a diagnosis of tonsillitis on right side and malarial fever. The inflamed part was hard, swollen and painful to the touch, and seemed to contain pus. Incision was followed by 10 c.c. of blood without pus. In an hour and a half it bled about a pint. In two days the swelling had increased so as to almost touch the opposite side. Fluctuation and pulsation, such as Dr. Hulbert had sometimes found in abscesses of this region were found, but as blood only had followed a first incision, an aspirating needle was this time used, and as pure blood was withdrawn, the doctor for the first time suspected aneurism of the internal carotid, and asked Dr. Mudd to see the case.

Dr. Mudd found a swelling extending from the mastoid process to the thyroid cartilage. Inside the anterior arch of right side presented a firm clear outline, being pushed forward by a swelling which involved the right tonsil and adjacent pharyngeal wall and projected beyond the middle line. Palpation outside seemed to indicate that the tumor lay on the vessel, and inside pulsation en masse could be felt, neither sharp nor distinct. There was an absence of bruit, of strong or harsh thrill. Nothing could be heard but a prolonged arterial throb. These facts induced Dr. Mudd to suspect abscess. A history from the patient, elicited for the first time that she had now suffered *four weeks* from a ful-

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ness in the throat, thus antedating her attack of scarlatina. Dr. Mudd now aspirated and, securing pure blood, was satisfied that he had an aneurism to deal with. As the hour was late, operation was delayed until next day, to secure better light. The patient was then etherized, and it was found that pressure on the common carotid controlled the pulsation. This artery was readily exposed by Dr. Mudd, and a ligature passed under it. The bifurcation being exposed, it was found that pressure on the internal carotid controlled the pulsation. The patient's pulse was now 160 and weak. Just as the internal carotid was being isolated for ligation, the patient ceased to breathe without cyanosis, and the jaws became rigid, whilst blood issued from the mouth. The patient was quickly turned over, the jaws separated, and blood flowed freely from the mouth and nose. Dr. Hulbert quickly tightened the ligature about the common carotid, and the blood ceased to flow. As it was found that blood had flowed into the trachea, Dr. Mudd opened the trachea, inserted a tube, used artificial respiration, put the head low to allow blood to escape, but all to no purpose. The specimen showed that a rupture of the internal carotid had occurred, not at the site of punctures with the aspirating needle, but posteriorly.

Dr. Mudd stated that this made the third case which he had lost from the passage of fluid into the trachea. All of these were feeble, all *in extremis*. One occurred in an old negro woman in an operation for umbilical hernia. She had for twenty-four hours before the operation been persistently drinking large quantities of water. This she regurgitated whilst under ether. The water spurted from the mouth and nose. Being turned over she vomited not less than a gallon, but died even whilst the water flowed. Much of it entered the trachea. Another occurred from the passage of blood into the trachea during tracheotomy in the site of a former tracheotomy scar in a diphtheritic child who was very feeble.

Dr. Mudd demonstrated on the specimen that the artery was healthy above and below the aneurism, which was quite close to where the artery entered the skull. He drew attention to the youth of the patient, to the fact that with such a condition of affairs no bruit had been evolved. He thought that the aneurism had probably existed a long time, but that the acute inflammation of the tissues about it had perhaps involved the walls and produced acute dilatation.

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Dr. Lutz suggested that it was a traumatic aneurism produced by lancing the tonsil by some one before entering either hospital.

Dr. Hulbert said there was no history of such an occurrence. At the post mortem the trachea was found filled with blood clots.

Dr. Mudd stated in answer to a question by Dr. Meisenbach that he had not adopted Wolff's method of hanging the head lower than the body, during the operation to favor possible escape of blood, for fear that such a position would favor rupture of the sac. He especially had avoided this position for this reason.

UTERINE FIBROID.

THE PRESIDENT showed a pediculated fibroid removed from the uterine fundus by laparotomy. It was supposed to be an ovarian growth until the abdomen was opened. Though a fibroid is usually of slow growth this had grown to its present size in one year. The president observed that a common fallacy existed that fibroids never attained a great size. Some of the largest abdominal tumors are fibroids. This case had suggested malignancy, on account of its rapid growth, its heavy and solid character, but on the other hand it could be moved and did not give that unyielding impression to the hand that malignant growths usually have. The cystic degeneration often seen in the interior of fibroids, had attained but a beginning in the specimen presented.

THE AMERICAN OPHTHALMOLOGICAL SOCIETY.

The twenty-second annual meeting of this society was held at the Pequot House, New London, Conn., July 21 and 22, 1886, Dr. W. F. Norris, Philadelphia, presiding. At the commencement of the meeting, a special committee was appointed to report on a communication with reference to the organization of a Congress of American Physicians and Surgeons, the committee consisting of Drs. C. R. Agnew, C. S. Bull and B. E. Fryer.

Dr. H. Knapp read the first paper, which was entitled "Pyogenic Micro-Organisms with Demonstrations and Experiments." He exhibited specimens of pure cultures of various pyogenic bacteria on agar-agar in test-tubes and under the microscope, also different tissues of eyes infected with these germs. He showed two rabbits on which he had operated the day before for cataract. In operating

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upon the left eye, clean instruments were used, while in operating upon the right eye, instruments were used which were contaminated with staphylococcus pyogeneous aureus. The left eyes were free from secretion, the right eyes were suppurating freely, and an intense destructive inflammation was progressing. He then operated on two other rabbits in the same way, and, on the following day, all four rabbits were examined. In all the right eyes were suppurating, while three of the left eyes were in a good condition. In one of the first two rabbits, the left eye also was suppurating having become infected from the right eye of the other rabbit. They were in the same box, and the doctor found them with their heads together.

Dr. Knapp offered to furnish cultures of these pyogenic bacteria, to any one who desired to make investigations in this direction.

Dr. Knapp said that in Europe it is usual to lay instruments in antiseptic solutions, but this dulls the edge of cutting instruments. He has found that simply washing smooth instruments and rubbing them with a clean towel, will render them bacteriologically clean. Where they are grooved or rough, it is much more difficult to clean them. Forceps and such instruments may be placed in antiseptic solutions. In the majority of operations, a certain quantity of infecting material is necessary to produce an effect; and where there is a free escape of fluid from the wound, the material is washed off, but where there is a sucking-in process there is greater danger.

Dr. B. E. Fryer mentioned hydronaphthol as an antiseptic which may be found efficient to sterilize instruments, and would not injure cutting edges. Chloroform also might sterilize instruments.

Dr. Knapp said in answer to questions, that the presence of a lachrymal discharge with conjunctivitis would furnish a favorable soil for the growth of bacteria, and in operating on such eyes all discharge should be carefully removed. Both he and Dr. Andrews stated that they had pricked the cornea to one-third or two-thirds its depth and covered the wound with an emulsion of bacteria without suppuration following. Mere contact of the microbe with the wound is not sufficient, especially in case of the cornea where the discharge is liable to be washed off. Where the material is introduced into and kept in a wound for some time, it almost always has its effect.

Dr. Andrews uses clean water which has been boiled for cleaning instruments.

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Dr. C. S. Bull then read a paper giving "An Analysis of One Hundred Cases of Exudative Retinitis occurring in the course of Bright's Disease." Only cases which the writer had personally examined and followed to their termination were included, and cases due to scarlatina and pregnancy were excluded. In ninety-three cases of the one hundred and three, both eyes became involved. Hemorrhages occurred in sixty-nine cases. These were intimately connected with disease of the blood vessels. In only one instance was any color affection observed. Prognosis as to life is very unfavorable. The reported cases have been collected in thirteen years, and eighty-six have died, fifty-seven during the first year, and twelve during the second. Seventeen were still living, but of these fourteen were first seen within the past six months. One, however, was first seen seven years before. In four cases sugar was present as well as albumen.

Dr. Gruening said that in over one hundred cases in which the typical stellate change in the macula of both eyes had been observed, death had occurred invariably within two years after the diagnosis of retinitis albuminurica had been made out. He had seen one case in which the stellate appearance was present in the macula of one eye with no evidence of Bright's disease.

Dr. D. Webster mentioned one rare case in which he had examined the eyes of a clergyman and found characteristic retinitis albuminurica, and learned that fifteen years before a competent practitioner had found the same condition associated with albumen and casts in the urine. A slight trace of albumen was present now also.

Dr. Wadsworth, of Boston, had seen the stellate spots disappear entirely when the retinitis had come on during or immediately after pregnancy.

Dr. Gruening remarked that the patients with retinitis albuminurica who consult oculists at their offices are generally those with the small contracted kidney, while those with the large white kidney find their way to the hospital.

Dr. C. S. Bull repeated that in the cases which he reported, he had excluded all those due to scarlet fever or to pregnancy.

Dr. Geo. C. Harlan, of Philadelphia, read a paper on "Thrombosis and Peri-Vasculitis of the Retinal Vessels," giving the history of a very interesting case.

Dr. Wm. S. Dennett, of New York, presented a card for the use

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of educational institutions, containing a set of letters and underneath a statement of the exact distance at which these letters should be seen. The object is to give the laity some definite knowledge of what a normal eye should be expected to see. He thought it would be well to have some such card hung on the wall of every school room.

Dr. Hasket Derby, of Boston, reported cases showing "The Possible Retardation of Retinitis Pigmentosa in the Young." Non-use of the eye and applications of the constant current of electricity were the therapeutic means recommended.

Drs. Little, Webster, Fox approved the use of electricity, and were hopeful of good results from its use; the latter thought the negative pole the valuable one.

Dr. Harlan had little faith in any treatment.

Dr. Strawbridge had tried electricity very thoroughly ten years ago without any satisfactory result. He hoped most from alteratives, as bichloride of mercury and iodide of potassium, regarding the cases as probably syphilitic.

Dr. Theobald had not used electricity. He had seen temporary improvement from phosphate of iron, quinia and strychnia.

Dr. Risley thought that improvement had followed the hypodermic use of strychnia. In one case associated with asthenopia and contraction of the field, due principally to hypermetropic astigmatism, a weak solution of eserine had been used for the past two years with marked advantage.

Dr. Edward Jackson, of Philadelphia, read a paper on "The Equivalence of Cylindrical and Sphero-Cylindrical Lenses", the object being to demonstrate the laws involved, showing that equal crossed cylindrical lenses are optically equivalent to a spherical lens of the same power. Crossed cylinders of unequal refractive power may be regarded as crossed cylinders of equal refractive power combined with a third cylindrical lens, or as their equivalent, a spherical combined with a cylindrical lens.

Dr. G. Hay, of Boston, read by title a paper on "The Combination of Cylinder Lenses."

The special committee with reference to the proposition concerning the organization of a Congress of American Physicians and Surgeons, reported the following resolutions which were adopted.

Resolved, that a committee of five be appointed by this Society and be authorized to confer with committees from other medical

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societies with regard to the organization of a convention or congress of such societies, and report at the next meeting of this society.

Resolved, that it is the sense of this Society that its welfare would be put in peril by any alliance or cooperation which would interfere with its autonomy or independent meeting.

The following committee was appointed in pursuance of the above resolution: O. F. Wadsworth, M. D., Boston; C. S. Bull, M. D., New York; Geo. C. Harlan, M. D., Philadelphia; Samuel Theobald, M. D., Baltimore, and B. E. Fryer, M. D., Kansas City.

AFTERNOON SESSION.

George Strawbridge read a report of "Two Hundred and Sixty-Three Cases of Cataract Extraction with Particular Reference to the After Treatment." Two hundred and twenty-three of these cases had never been reported. The operation made was the modified flap extraction, the incision lying midway between the old Graefe incision and the corneal flap incision, avoiding the special risks of both these operations. He always made an iridectomy upward. Formerly pressure with the spoon upon the cornea was used to remove the lens; later he had substituted pressure with the finger upon the closed lids. He had had 85.2 per cent of successful cases, 8.1 per cent of partial successes, and 6.7 per cent of failures, including in the latter all cases in which fingers could not be counted at a distance of one or two feet. Absolute loss of the eye had occurred in twelve cases, eleven from choroiditis and one from choroidal hemorrhage.

Formerly he applied a bandage and kept the patient for four to six days in bed in a darkened room. This had been found exceedingly debilitating in elderly individuals,and lately he had gradually modified treatment so that during the last six months his patients had been practically kept in bedonly twenty-four hours. The room is as light as ordinary rooms, and if all is doing well at the end of twenty-four hours he allows them to move about the room.

As to the use of cocaine, he had had one unfortunate experience, a violent purulent inflammation and total loss of the eye following the use of a four per cent solution. He had had no unpleasant results since that one. He now uses a two per cent solution, using only two drops with an interval of one minute between. He had used no antiseptic except a two per cent solution of boracic acid which he thought alike harmless and useless.

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He regards the use of stimulants as of great importance in elderly people, commencing the administration of whiskey a few hours after the operation.

Dr. H. Knapp had been favorably impressed while abroad with the operation for cataract extraction without iridectomy. Of fourteen extractions made since his return, the last six had been made without iridectomy. Three had made perfect recovery; the other three had some posterior synechia, leaving the pupil ragged and somewhat obstructed. Vision was fair and could be rendered excellent by a simple needling operation. The steps of the operation are a large section along the superior margin of the cornea, free laceration of the capsule, expulsion of cataract and its remnants, reduction of the iris with a probe if it did not occur spontaneously. Cocaine is used and antiseptics. The chief advantage claimed for the operation is the possibility of keeping the wound perfectly free from foreign substances, including portions of the lens, capsule and iris. The frequency of the occurrence of synechia could only be determined after larger experience.

Dr. D. Webster reported "Fifty Cases of Cataract Operation." In seventeen cases ether was used, in twenty-seven cocaine and in six no anesthetic. The successes had been forty-one; the partial successes six; and the failures three.

Dr. H. D. Noyes of New York, reported the "Death of a Patient on the Fifth Day after the Extraction of a Hard Cataract." The death seemed to have been due to heart failure. Sections through the eyeball show the kind of union which is found at the end of the fifth day. The union appears to have taken place exclusively through the medium of the epithelial layer.

Dr. Webster urged the importance of using as small quantities as possible of cocaine in cataract operations, and referred to the use of too much cocaine some unfavorable results of cataract operations in his hands.

Dr. B. Joy Jeffries, of Boston, thought there was advantage in applying the cocaine to both eyes, rendering the eyes quiet and enabling the patient to keep them open.

Dr. Agnew advises to instil one drop of a four per cent solution and to hold the lids open to allow it to diffuse over the surface. One or two drops are usually enough. He says it has not been customary in New York to keep patients in the dark after cataract operations.

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Dr. Mittendorf, of New York, has had two cases of serious complications in cataract cases, which he attributed to cocaine used too freely. He opposed holding the eye open after instilling the solution, as the injurious action of cocaine is exerted specially upon the epithelial layer, and in shutting off the supply of lymph fluid, and the epithelium suffers very rapidly from lack of moisture when the eye is kept open. He used a solution of less than two per cent strength.

Dr. Wm. Thompson, of Philadelphia, had had good results from solutions of two grains to the ounce.

Dr. Gruening stated that DeWecker does not perform cataract operation without iridectomy, except in the winter season, as in summer weather patients are apt to be restless, and in consequence prolapse of the iris is apt to occur. Of the two cases in which he had made this operation one had been entirely successful. Prolapse of the iris had occurred in the other, necessitating an iridectomy, after which there was no further trouble.

Dr. Noyes said that his experience above mentioned had led him to the conclusion that this operation is a valuable one, but that the cases must be judiciously selected, and that a satisfactory result is more certain with than without an iridectomy.

Dr. B. A. Randall called attention to the fact that it was claimed for this operation by M. Panas that it was less likely to be followed by inflammation than when iridectomy was performed.

Dr. B. Joy Jeffries introduced the subject of color blindness and testing the same, claiming that the law in Massachusetts was a dead letter and incapable of being enforced, by reason of the fact that no positive standard is determined.

Dr. C. S. Oliver, of Philadelphia, exhibited a new series of tests, consisting of five large test skeins of Berlin worsted, twenty small pure match skeins, and seventy-two small confusion skeins. Each skein has a metallic handle attached, on which is marked the exact equivalence of the color, tint and shade so as to be understood only by the surgeon. The colors are of equal intensity, the wools are of one manufacture and colored with vegetable dyes.

Dr. Dennett exhibited a set of Holmgren's worsteds made into balls instead of skeins.

EVENING SESSION.

Dr. J. A. Andrews read a paper on the effect of the electric light upon the eye. He considered first the effect of various kinds of il-

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lumination and referred to the injurious effects of exposure to bright sunlight, bright lamplight and the reflection of sunlight from the snow.

Comparing gas, kerosene and electric light, he found that the latter gives the maximum of light with the minimum of heat. The only cases of injury from electric light so far reported, have resulted from exposure at close range to the intense light of an arc light, and in those cases there was no certainty that there had not been pre-existing trouble in the eyes. The effect is probably produced through the nervous system.

Workers with the incandescent light, of whom the author had examined over eleven hundred, had experienced no injury, and those suffering from errors of refraction claimed that they saw better with this light. Its principal advantages are its steadiness and the fact that it does not contaminate the atmosphere.

Dr. Agnew reported the highest satisfaction with the incandescent light introduced into the Columbia College reading room.

Dr. Wm. S. Little read a paper on "A Method of Overcoming Diplopia when Prisms are not fully Effective."

This consists in having the lower part of the lens for the drooping eye ground opaque and vision under the glass cut off by a wire network fitting close to the face, and having the perforations stopped by painting. This leaves the upper part of the glass where no diplopia exists, clear for vision with both eyes, and shuts off the use of the affected eye in the part where the use of both eyes may cause uncertainty and danger in walking.

Dr. W. F. Mittendorf, of New York, described two epidemics of molluscum contagiosum, the details of which would seem to settle affirmatively the disputed question as to the contagiousness of this disease. Excision with scissors and touching the base with nitrate of silver had proved the most satisfactory treatment.

Dr. Mittendorf also described a case of "Melanotic Sarcoma of the Conjunctiva and Cornea." The patient came under observation first in August, 1884. Recurrence after removal had taken place repeatedly; the last time the eyelids could not be separated and an incision had been made for the removal of the growth, which microscopic examination showed to be a round celled sarcoma. The general health of the patient had not been effected.

Dr. B. E. Fryer, of Kansas City, read a paper advocating "The Use of Hot Water in some of the Corneal and Conjunctival In-

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flammations." The water should be as hot as it can be borne, and in a few hours he claims that tolerance of a temperature of 140° F. will be reached, and in some cases patients will bear almost the boiling point. One method is by fomentation with a napkin dipped into the hot water and applied without wringing to the closed eyelids. This is continued for half an hour at a time, and repeated every one, two, or three hours day and night. Or a vessel containing the hot water may be suspended above the patient and the water be allowed to escape through a tube, thus keeping up a continuous action of hot water. In some cases of purulent ophthalmia, the hot water may be thrown directly into the conjunctival sac. During the intervals between the applications a cloth wrung out of hot water is kept over the eyes.

Dr. Fryer claims that these hot applications will reduce the inflammation and cut short the attack in cases of purulent ophthalmia, gonorrheal or other, much more efficiently and promptly than those of ice cold water. Its most marked effects are seen in corneal ulcer, reducing the amount of opaque tissue, and diminishing the pain and photophobia.

Dr. Norris had not used hot water at so high a temperature as recommended by Dr. Fryer; but had had favorable results in gonorrheal ophthalmia from water at 120° to 125°.

Dr. Theobald had not used it in purulent affections, but in interstitial keratitis had found it beneficial.

Dr. W. F. Norris, of Philadelphia, read a paper on "Asthenopia and the Changes in Refraction in Adolescent and Adult Eyes." He considers it a matter of importance to correct even slight errors of refraction, when they cause asthenopia, thus removing congestion and softening of the eye, and preventing the lengthening of its visual axis. Diminishing hypermetropia and increasing myopia are simply different stages in the same process.

Dr. Gruening called attention to a class of cases in which there is pain in the eyes on arising, with photophobia and lachrymation, and inability to fix upon any object for any length of time. He has almost always found nasal disease associated with this condition. All affections due to nasal irritation are increased by the horizontal position, which increases the congestion of the erectile tissue of the nose. Treatment of the nasal disease has relieved the symptoms as well. Of two hundred cases relief had been so afforded to one hundred and fifty, and the rest had passed from observation.

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SECOND DAY—MORNING SESSION.

Dr. S. Theobald, of Baltimore, read a paper entitled "The Amblyopia of Squinting Eyes; Is it a Determining Cause or a Consequence of the Squint?" He favored the view that amblyopia is secondary to the squint and due to the mental suppression of the visual image formed in the squinting eye. He claimed that the amblyopia is not due simply to want of use of the squinting eye, but to an active cerebral process which induces blindness much more rapidly.

Dr. H. D. Noyes favored the opposite view, basing his opinion on his own experience and observation for a number of years. There was no proof that these patients had binocular vision before the development of the squint, and there was evidence to the contrary. Binocular fixation after operation is not infrequent, but according to his experience, binocular vision follows in only twenty per cent of the cases. Material improvement in an amblyopic eye rarely occurs after operation.

Dr. Wadsworth agreed with Dr. Noyes.

Dr. Harlan and *Dr. Mittendorf* thought the results rather more favorable as to vision than the others had given.

Dr. B. A. Randall reported "Two Cases of Severe Traumatism of the Eye, with Partial Dislocation of the Lesser Crystalline Lens." In one the sclera was ruptured at three points, the upper half of the lens was in the anterior chamber in front of the iris, the lower half apparently in nearly the normal position. Under rest in bed and other appropriate treatment the lens receded. The rupture of the sclera healed up, and vision became equal to about one-thirtieth normal vision.

In the second case there was less luxation of the lens, but the ophthalmoscope showed two rents in the choroid. The case made a good recovery.

Dr. J. S. Prout, of Brooklyn, read a paper on "Badal's Operation —Laceration of the Infra-Trochlear Nerve for the Relief of Glaucoma, etc., with Cases." He had performed the operation nine times on five patients, all unpromising cases. In one case decided improvement of vision followed, in one there was temporary relief from moderate and in another from severe pain. One case of simple and one of hemorrhagic glaucoma were not benefited. Better results have been obtained by other operators.

Dr. Prout draws the following conclusions: The operation has

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been shown to deserve further trial, especially in cases unfit for operation on the eyeball. It cannot make matters any worse as to the eyes. Relief from pain, even if only temporary, is worth securing at the cost of so slight an operation. It is important that cases be recorded so that its value be ascertained.

Dr. H. Knapp read a paper on "Advancement of Tenon's Capsule in Strabismus. He described Dr. Wecker's mode of operating as follows: A piece of conjunctiva, five millimeters wide and ten high, is detached from the region of the insertion of the tendon, leaving a small band near the cornea. Tenon's capsule is now incised near the insertion of the tendon and loosened along side of and under the muscle. The capsule is then stitched forward by two sutures entering through the conjunctiva to the capsule at the lower and upper edges of the muscle and coming out in the conjunctiva above and below the cornea.

Dr. Knapp had operated ten times. He leaves a broader conjunctival flap and uses a third middle suture. His results have all been quite good. In no case has there been any alarming reaction. He prefers this operation to simple advancement of the tendon, as being simpler and involving less risk.

Dr. J. S. Prout then read a report of a case of "New Formation in the Vitreous of Both Eyes," probably a remnant of the fetal circulation of the vitreous.

Dr. Emil Gruening reported a case of "Tumor of the Left Occipital Lobe."

Dr. Edward Jackson, of Philadelphia, presented a series of lenses for the refraction ophthalmoscope.

Dr. John Green, of St. Louis, exhibited and described a new series of test letters and lines.

Dr. C. A. Oliver, of Philadelphia, presented a series of metric test letters and words.

Dr. S. D. Risley described a "Case of Retinitis Albuminurica—Induced Premature Labor." In a previous pregnancy there had been albuminuria but no disturbance of sight, and in a second pregnancy there had been no trouble. When between the fourth and fifth month of pregnancy there was marked disturbance of vision, the urine contained albumen in abundance, and the ophthalmoscope showed albuminuric retinitis of both eyes. It was deemed advisable to induce an abortion and she was delivered of a five months fetus. She then became unconscious and remained so

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for four days. Consciousness gradually returned leaving right hemiplegia with aphasia. Albumen gradually diminished, and there was improvemont in his general condition until after six months, she was able to return to her customary duties, though some traces of aphasia still remained.

Dr. J. H. Andrews read a paper on "The Frequent Instillation of a Two per cent Solution of Nitrate of Silver in Purulent Ophthalmia." In twenty-five cases of gonorrheal ophthalmia, all severe, with profuse discharge, chemosis, etc., he had used this treatment successfully, no serious damage occurring in any of the eyes. The applications were used from three to five times daily, according to the amount of swelling of the lids.

Dr. R. Murdoch, of Baltimore, exhibited an impervious covering for the sponge in administering ether.

Dr. H. D. Noyes read a paper on "Measurement of Astigmatism by the Ophthalmometer of Javal and Schiotz.

Several papers were read by title, and then the election of officers for the coming year took place with result as follows: President, Dr. Wm. F. Norris, Philadelphia; Vice-President, Dr. Haskett Derby, Boston; Secretary and Treasurer, Dr. O. F. Wadsworth, Boston; Corresponding Secretary, J. S. Prout, Brooklyn. The next meeting will be held at the same place on the third Wednesday of July, 1887.

AMERICAN OTOLOGICAL SOCIETY.

The nineteenth annual meeting of this society was held in New London, Conn., July 20, 1886, the president, Dr. J. S. Prout, of Brooklyn, in the chair.

The treasurer's report showed a balance of cash on hand to the amount of $51.82

The first paper read was by Dr. S. Sexton, of New York, and was entitled "Acute and Chronic Purulent Inflammation of the Middle Ear Tract and their Complications."

Prognosis he regards as favorable when the treatment is judicious. He had not seen a fatal case in over 20,000 cases seen at the onset of the attack; but twelve deaths had occurred in cases in which severe symptoms had developed before coming under treat-

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ment, some of the deaths having occurred long after the abatement of the aural disease.

Dr. Sexton advocates incision of the drum-head as an element of the treatment, believing that drainage is best had through the meatus. He does not favor trephining of the mastoid, which has been advocated by some in the treatment of these cases.

Dr. Sexton further described a new operation for the radical cure of chronic purulent inflammation of the middle ear tract.

Having observed that in some cases where the conducting mechanism has been entirely lost, spontaneous cure follows, he determined to imitate nature's process, and remove the remaining portion of the membranes and the ossicles.

No serious disturbance had followed the injury to the chorda tympani. Disturbances of the taste sometimes followed but they had always gradually disappeared.

Cleanliness and dressings with boracic acid powder constitute the after treatment. The results which he had obtained were such as to lead him to think highly of the operation, but he only advocates it in chronic cases.

Dr. A. H. Buck, of New York, then read a paper on "Painless and only Slightly Painful Ulceration of the Membrana Tympani, probably of a Tubercular Nature." He had seen three cases of this character. The general health of the patients was good. No evidence of pulmonary disease was present in either case.

The distinguishing characteristics of the incipient stage are the tendency to localization in the upper posterior portion of membrana tympani, the insignificance or absence of pain, and the intolerance of all but the simplest local applications. In connection with his own cases, Dr. Buck read a communication from Dr. Clarence J. Blake, of Boston, describing similar observations.

Dr. J. A. Andrews stated that he had never found the bacilli of tuberculosis in cases of middle ear disease, though he had often sought for them.

Dr. Buck did not think that the failure to find the bacilli should exclude the supposition of tuberculosis.

Dr. J. Orne Green had twice seen in cases of advanced tuberculosis little white, glistening, pin-head-sized points on the drum membrane, non-secreting, and in one case with no congestion. These spots disappeared in a few days, and within twenty-four hours there was a little clean, punched out perforation in the mem-

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brane. He believed those glistening points to have been isolated tubercles.

Dr. Buck then read another paper giving "Certain Technical Details relating to Operation on the Mastoid Process." He expressed a decided preference for the drill in making this operation.

Dr. J. Orne Green also depends on the drill for opening the mastoid, though using a gouge and chisel when a large opening is necessary. He has a modification of the dental engine which is screwed upon a table and turned with a handle.

Drs. H. Knapp and *H. D. Noyes* expressed a strong preference for the chisel as being safer and more easily managed than the drill.

Dr. J. A. Andrews uses the drill first and enlarges the opening with chisel.

Dr. Gruening said he had opened the mastoid process seventy-seven times. Formerly he used the drill exclusively. Later he had discarded that for the chisel.

In concluding the discussion Dr. Buck said that he was no opponent of the use of the chisel where a large piece of bone was to be removed, as this could not be done otherwise. His paper referred only to the cases where a small opening was desired.

EVENING SESSION.

Dr. Knapp, of New York, read a paper recording the "Fatal Termination of a Case of Sclerosing Mastoiditis after Chiseling of the Bone."

Dr. O. D Pomeroy, of New York, read the report of "A Case of Abscess of the Mastoid Cells when the Chief Indication for Operation was Elevation of Temperature."

Dr. Charles H. Burnett, of Philadelphia, reported "Two Cases of Chronic Purulent Inflammation of the Attic of Tympanum, with Perforation of the Membrana Flaccida Treated with Peroxide of Hydrogen." In both cases he had been much pleased with the action of this agent, which in a cavity like the middle ear, seems to seek out every particle of albuminous or purulent matter. When poured into the cavity it unites with the pus, causing a copious foam which boils out of the external ear. When the foaming ceases and the peroxide returns clear, the cavity is cleansed. In many cases this simple, thorough cleansing seems to be sufficient to effect the cure. The peroxide is used undiluted.

Dr. Wm. S. Little then read a paper discussing the question "In

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the Physiology of Hearing is there an Overlapping of Each Auditory Field the same as in Binocular Vision?" It has been found that there is an area of overlapping of the auditory fields of the two ears of about twenty degrees. Within this area both ears hear, without it each ear hears singly. This explains the fact that we do not need to turn the head in order to hear sounds from different directions. This fact also assists in determining the direction from which sounds come.

Dr. Gorham, of New York, presented a paper "On Two Cases of Ear Disease Due to Traumatism," which was read by title.

In executive session the society then discussed the proposition referring to the organization of a Congress of American Physicians and Surgeons, and appointed the following as a committee of conference with committees from other societies, viz., Drs. C. R. Agnew and H. Knapp, of New York; John Green, of St. Louis; W. H. Carmalt, of New Haven, and George Strawbridge, of Philadelphia.

The following are the officers for the current year, viz., Dr. J. S. Prout, Brooklyn, president; Dr. Samuel Sexton, vice-president; Dr. J. J. B. Vermyne, New Bedford, Mass., secretary and treasurer. Drs. Gorham Bacon, W. S. Little, and E. W. Bartlett, committee on membership. Six new members were elected and the society adjourned.

VETERINARY MEDICINE.—New York is the only state as yet which has undertaken to regulate the practice of veterinary medicine and surgery. A law has been passed requiring the registration of all practitioners with the evidence of proper qualification afforded by a diploma from some legally incorporated college or a certificate from an incorporated veterinary society. The first class in veterinary medicine, consisting of five members, graduated from Harvard University, June 30.

A CAPITAL LETTER should be employed in writing the specific name of a medicinal substance, first, when derived from a generic name, as *Rhamnus Frangula*. Second, when derived from the name of a person, as *Strychnos Ignatii*. Third, when indeclinable, as *Erythroxylon Coca*.—*Quiz-Compend—Pharmacy*.

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SELECTIONS.

TESTS FOR ALBUMEN IN URINE.

The following is an editorial summary in the *British Medical Journal*, June 26, of the report of the "Albumen Test Committee," of the British Medical Association, and will, we think, be of interest to our readers:

"The tests of which they investigated the comparative usefulness were the following: 1. Dr. Oliver's papers; 2. Dr. Pavy's pellets; 3. Dr. Johnson's picric acid; 4. Sir W. Roberts's acid brine; 5. A solution of picric acid saturated with common salt—picric acid brine; 6. Solution of potassio-mercuric iodide with citric acid; 7. Nitric acid; *a*, with previous boiling of the urine; *b*, applied according to Heller's method; 8. Acetic acid and heat; the urine being boiled previously to acidification. The Committee experimented with some artificial admixtures of albuminous bodies in fluids other than the urine, which need not here be particularized. The general conclusion obtained from these preliminary experiments was that solution of potassio-mercuric iodide with citric acid, particularly when used after Heller's method, gives the most delicate and clearly marked re-actions; and that nitric acid is, for use in the consulting room, not inferior to any but the potassio-mercuric-iodide test; its use in the two ways indicated above being taken into comparative consideration with the other tests correspondingly applied. By the use of different reagents, the Committee were able to distinguish some forms of albuminous bodies from some other states or forms; for instance, peptones from egg-albumen, or serum-albumen, or the albumen of albuminuria.

As regards the clinical use of the tests above enumerated, the Committee arrived at the following conclusions:

1. Of Dr. Oliver's test-papers, the potassio mercuric iodide give the most delicate reactions of all the papers, and excel nitric acid, however applied. The ferro-cyanide papers come next, but with a decided interval, and the tungstate papers third; whilst the

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picric-acid papers are less satisfactory, as an inconvenient quantity has to be used. The two first named papers require the use of citric acid in the cold, which involves a possible fallacy, in that citric acid produces a precipitate when an excess of soluble urate is present in the urine. Urine of high specific gravity should consequently be diluted, to avoid this source of error; and sufficient acid must be added to render neutral or alkaline urine distinctly acid. The potassio-mercuric-iodide papers appear to precipitate all albumens indiscriminately; but the precipitates with artificial peptones are dissolved on heating, and reappear on cooling. The ferrocyanide papers do not precipitate artificial peptones; while their reaction with other albumens is keen. One apparent fallacy that might occur in the use of Dr. Oliver's papers is not noticed in the report. It happened to us once, in employing an iodide paper to test some serum drawn from a hydrocele, to find that the paper gave apparently no reaction, whereas the liquid when boiled in another tube, became quite solid. Upon taking the paper from the first portion of the liquid, however, on examining it more carefully, it was found to be coated completely with a thick layer of solid albumen, which had apparently prevented any further egress of the salt from the paper into the liquid around, in that way frustrating all further reaction. The very sensitiveness of the test induced a belief in its failure. When, however, the serum was well diluted with water, the albuminous nature of the liquid was at once completely demonstrated by the paper. It is, perhaps, possible that the same thing might occur in a specimen of extremely albuminous urine.

2. Dr. Pavy's pellets of nitric acid and ferrocyanide of potassium are reported to give as good results as the potassio-mercuric papers of Dr. Oliver, (neither of these reagents being quite so searching as the solution of the potassio-mercuric iodide). They are stated not to precipitate peptones; and, therefore, in conjunction with the iodide solution, they may distinguish the two kinds of proteid, and, so far, help in the clinical analysis of pathological conditions. In using this test, citric acid has to be first added; and this source of fallacy (as noted above) must be avoided by dilution, where the specific gravity of the urine is high. Bubbles of gas, which the pellets sometimes liberate, must also be distinguished from a precipitate.

3. Dr. Johnson's picric acid solution requires decided excess

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of the re-agent, or the addition of acetic or citric acid. It is reported to be most useful, giving re-actions only second to those of the potassio-mercuric iodide solution. The mixture of picric acid and urine should be boiled. Artificial peptones are thrown down by this test in the cold, but disappear upon boiling, and reappear as a cloud on cooling. The picric acid solution should be dropped into the tube of urine, held vertically, in such a way that each drop falls upon the centre of the surface of the urine, so as to obtain differentiation by the production of a film around it, if albumen be present. This cannot be managed if the solution be poured down the side of the tube, as the picric acid solution is of low specific gravity, and highly diffusible. This gives a precipitate, not necessarily albumen, in the urines of persons taking quinine. The precipitate is distinguished by its being soluble on boiling, to reappear in a crystalline form on cooling; whilst it gives the quinine reaction with chlorine water. This test also precipitates uric acid in the cold; but this cloud disappears under heat.

4. Roberts's brine-test is stated to be sensitive, and very trustworthy, though not quite so delicate as the other tests. It does not precipitate peptones or quinine; and it is said to allow the discrimination of mucus from albumen, the cloud of the former being snper-imposed upon the albuminous cloud.

5. Picric acid brine can be used after Heller's method, which is not possible with picric acid solution alone; owing to i ts low specific gravity, it gives good results.

6. The solution of potassio-mercuric-iodide, with addition of acetic acid, is the most delicate test in the list.

7. Nitric acid, used by Heller's method, and added cautiously, in a somewhat diluted state, to urine just boiled, is declared to be a test of great delicacy, and to be liable to fewer fallacies than the other tests considered. The drawback to this test is its difficulty of portability.

8. Acetic acid, added so as to ensure a decided acid reaction to urine just before, or immediately after boiling, is a delicate test.

The report states of mucin, that it is precipitated by most of the re-agents which precipitate albumen. The distinction of the two clouds, when formed by Roberts's brine-test, has been already noticed; the same kind of indication is given with nitric acid,

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in Heller's method. With regard to the other tests, mucin cloudiness thereby obtained shows less ready sedimentation than albumen cloudiness, and exhibits a marked mobile satiny appearance of the precipitate when shaken in a good light.

In some urines, the potassio-mucuric iodide and picric acid tests produce a precipitate apparently albuminous, when nitric acid affords no such indication.

Finally, the committee think all the tests are valuable practical aids in diagnosis; that some are especially portable, and capable of application without the use of cumbrous apparatus; and that each test has an usefulness of its own. The committee consider that any one devoting himself to the thorough use of one of the tests, will find it sufficiently precise for all practical needs, and that, by comparative use of several tests, the discrimination of differing forms of proteids may be obtained. The picric acid test, which admirably detects albumen and peptones, if boiled with caustic potash, detects, also, the presence of sugar. The committee lastly note that the knowledge of the reactions of albumens is at present imperfect, and, possibly, capable of much improvement. But to the settlement of this question their functions did not extend.

The points, however, which were delegated to the committee for inquiry, are of great practical importance to almost all classes of practitioners, and have apparently received a calm judicial investigation. For their labors in this report, which Dr. Ord presented on behalf of the committee, the members will receive appreciative thanks.

The subject of testing for albumen, was, many years ago considered to be settled on a fairly satisfactory basis; and those practitioners who then learned to use heat and nitric acid skilfully have, according to this report, no reason to be mistrustful of those tests. But the appearance during recent years, one by one, of several other methods of testing, each claimed by its introducer to public favor as the "best on record," has tended rather to shake men's confidence in the tests with which they had formerly been quite satisfied. This report, happily, will go far to reassure practioners of the excellence of those methods for ordinary laboratory work; whilst of the many portable tests, for use at the bedside, now competing for public favor, they may choose one or more to supplant the nitric acid ordinarily so destructive to the medical man's bag and nearly all its contents.

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OBITUARY.

DR. WM. L. BARRET.

Wm. Lee Barret was born in St. Louis in 1843. He received his preliminary education in the Washington University, of this city, and attended a course of lectures in the St. Louis Medical College, and then went to New York, graduating at the Bellevue Hospital College in 1866, after which he spent three years in the office of Dr. T. Addis Emmet, acting as his assistant. Having returned to St. Louis, he was appointed health officer, and discharged the duties of that position very efficiently for several years.

Though engaged in general practice, he gave attention especially to obstetrics and gynecology, which latter more and more fully occupied his time and attention.

For several years he has been connected with the St. Louis Medical College as Lecturer on Diseases of Women, and at the recent re-organization of the faculty of that institution he was appointed Professor of Gynecology. He was a successful teacher, and thoroughly won the esteem of his pupils.

As a practitioner he was able and skilful, and by his kindly sympathetic manner, won not only the respect but the affection of his patients.

He was one of the staff of St. Luke's Hospital, and did very much to promote the success of the institution.

At a meeting of the hospital staff held Aug. 21, the following resolutions were adopted:

WHEREAS, Divine Providence, to whose wisdom we in all humility submit, has removed from his earthly career, our dearly loved friend and professional brother, one who, in the ripeness of his early manhood, gave promise of a long life of infinite service to his fellows and to medical science, therefore be it

Resolved, That we mourn the loss of one who walked every path of duty, who bore the burdens of the day, as convinced that life is

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too short to waste its precious moments, that the highest reward is, "Well done, good and faithful servant."

Resolved, That the profession has lost one of its most tried and valued members, the community, a benefactor, whose charity, unbounded to frail and suffering humanity, was only equalled by his skill to relieve and cure.

Resolved, That St. Luke's Hospital, throughout its existence, owes much to his wisdom and his labors; in life he gave to it of his vitality; in death, his memory will so endure as to refresh and sustain.

Resolved, That we tender to the bereaved widow, whose sufferings are intensified by the loss of her only and cherished son, our deepest sympathies in this great affliction. May she be sustained in her hour of trial by Him who alone can give comfort and support.

Resolved, That a copy of these resolutions be transmitted to the family of the deceased; be also published in the newspapers and medical journals of the city, and spread on the record of the Hospital Staff.

Signed, H. H. MUDD, M. D., Chief.
J. S. B. ALLEYNE, M. D.
W. E. FISCHEL, M. D.
G. F. GILL, M. D.
J. B. SHAPLEIGH, M. D.
J. GREEN, M. D.
E. S. LEMOINE, M. D.
W. PORTER, M. D.
M. H. POST, M. D.

FRANK H. HAMILTON.

Frank H. Hamilton died August 11, 1886, at his residence in New York City. He had been suffering from phthisis pulmonum for a couple of years, but though feeble, had not seemed seriously ill until about two weeks before his death.

He was born Sept. 10, 1813, in Wilmington, Vt. He graduated from the Medical Department of the University of Pennsylvania when only twenty years of age. After remaining a short time at his home in Vermont, he removed to Auburn, New York, and settled in practice there, and soon became known as an able young

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surgeon. Five years after graduation, he was chosen professor of surgery in the Fairfield, (N. Y.,) Medical School. A year later, he accepted a similar professorship in the Geneva, (N. Y.) Medical College. Four years later he removed to Buffalo, where was formed the life long friendship between himself and the late Dr. Austin Flint. These two with Dr. Jas. P. White in 1846 organized the Medical Department of the University of Buffalo. For fourteen years Dr. Hamilton filled the chair of surgery in that institution, and then removed to Brooklyn where he became Professor of Surgery in the Long Island Hospital. He had hardly got fairly settled to work in his new home when the war broke out, and he entered the army as surgeon to the Thirty-First New York Regiment. In 1863 he had been promoted to the position of Medical Inspector U. S. Army. In 1864 he returned to New York City. He was one of the founders of Bellevue Hospital Medical College, and filled its chair of surgery till 1875, when he resigned.

Dr. Hamilton was not only a skilful surgeon, but one of the ablest writers on surgical subjects and a leading authority especially in regard to bone surgery, his "Treatise on Fractures and Dislocations" being the standard text-book on the subjects discussed, and having been translated into several foreign languages. His "Treatise on the Principles and Practice of Surgery" was his special pride. He remarked to his daughter after he had finished it, "Well, now my life is completed."

Dr. Hamilton by his teachings and his work, has done much for the profession, and its members mourn his death as that of one of its foremost leaders.

"COMPOUND OXYGEN" is stated by the *Journal of Chemistry* to be a solution of nitrate of ammonia, a solution which taken internally or inhaled, can no more yield oxygen than so much cold water.

LOOMIS LABORATORY.—This is to be the name of a new building for the medical department of the University of New York, for the construction and maintenance of which $100,000 has recently been contributed by a gentleman who, for the present, withholds his name from publication.

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ST. LOUIS
COURIER OF MEDICINE.

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ORIGINAL ARTICLES.

UREMIC CONVULSIONS.

BY E. R. HICKERSON, M. D., MOBERLY, MO.

[*Read before the Moberly District Medical Society*, June 15, 1886.]

SHORTLY after being appointed as one of the essayists for our June meeting, an interesting case came under my charge, which presented many features of peculiar interest and at the same time alarming symptoms. I can imagine nothing more appalling and terrifying to the bystander and medical man, or that creates in the mind more alarm and apprehension of the result than a puerperal convulsion. The complete insensibility and unconsciousness during the fit, as well as during the interval, the swollen condition of the neck and face, the prominent eyelid open or closed, the quick rolling motion of the eye-balls in different directions or fixed in an upward stare, the open and distorted mouth, the protruding tongue, which is often bitten during the locked condition of the jaws that follows, causing a bloody froth to issue from the mouth, the muscles of the face rigid, the upper extremity bent, the body twisted to one side and all the extremities thrown into jerking motions. Respiration sometimes ceases for seconds, the carotid pulsates strongly, all the veins of the neck and face swell on account of arrested circula-

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tion from muscular spasm. The face cyanotic, all the muscles of respiration are in a state of contraction, especially the diaphragm. Asphyxia may and often does occur. After these terrible symptoms, the soporose condition follows more or less prolonged; the patient lies unconscious—motionless, the extremities rigid and stretched out. In this condition the patient may remain from a half to one or two hours or longer, when another convulsion may occur if the paroxysm of the first does not end in death.

Now what is the reason of this overwhelmed condition of the brain? of this great disturbance in the motor functions of the nervous system, characterized by insensibility and spasm? Toxemia, or blood poisoning, the result of Bright's disease in an acute form, whose toxic effects on the nutrition of the brain and nervous system produce these terrible results. The best authorities say that the eclampsia of pregnancy and parturient women is commonly produced by uremia; by change of the urea, which has been retained in the blood, or by retention of the excrementitious extractive matter of the urine. Hence they designate true eclampsia during pregnancy as uremic, without implying that it is peculiar to pregnancy or child bearing, as the same disease may manifest itself in women not pregnant, but more often in those pregnant; owing, no doubt, to the peculiarly excitable condition of the nervous system in pregnancy. This fact was clearly pointed out by Dr. Tyler Smith and many other writers. Her nervous system is in this respect not unlike that of children, in whom the predominant influence and great excitability of the nervous system are well established facts, and in whom precisely similar convulsive seizures are of common occurrence on the application of a sufficiently strong exciting cause. Frerich says that uremic intoxication is not due to the urea or other ingredients of the urine, but rather to the urea accumulated in the blood, which is transformed into carbonate of ammonia under the influence of some peculiar ferment; and that carbonate of ammonia is the baneful agent which produces these disturbances in the functions of the nervous system, but he does not state the cause of this fermentation. For the production of uremia, then, it is necessary to have in the blood a quantity of

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urea and the presence of some fermenting agent, by which means the urea may be changed into carbonate of ammonia. If the fermenting principle or material is wanting, then the blood may be charged with urea without any injurious consequence occurring. In this way we may account for so many persons who have died of Bright's disease without any uremic convulsions or other such phenomena having been observed during life. This theory, derived from carefully made experiments by Frerichs, is very plausible; but what is the cause of this blood poisoning giving rise to these convulsions? Among the remote causes we may mention the peculiar changes in the blood of pregnant women; the pressure of the gravid uterus upon the renal veins, causing a hyperemia, a congestion, a stoppage of venous blood in the kidneys, this producing an escape of albumen, fibrine and blood into the urinary tubules. Statistics show that eighty per cent of eclampsia occur in first pregnancies, in which, on account of the greater resistance of the abdominal walls, a powerful counterpressure is exerted on the kidneys. Plural pregnancies also predispose to eclampsia. Accumulations of urine in the ureters and in the pelvis of the kidneys, may, without direct pressure from the womb on these organs, produce eclampsia or uremic convulsions; probably by the reabsorption of carbonate of ammonia. According to Fitzman, the cases in which albuminuria occurs in the first half of pregnancy cannot be referred to pressure on the renal veins, but may be traced back to catarrhal irritation of the urinary passages, or, in some cases, to really existing Bright's disease, a complication existing before pregnancy. Frerichs has directed attention to the altered condition of the blood of pregnant women, and especially pointed out the increase of water and of fibrine and the diminished quantity of albumen and red blood corpuscles, and the relative increase of white blood corpuscles. In accordance with hese, the majority of pregnant women afflicted with albuminuria have a chlorotic appearance, a pale, tallow-like complexion, a puffy and bloated condition of face and hands.

The case which suggested to my mind this subject, was one of acute Bright's disease in a woman 28 years old, primipara, who had gone to the end of about the eighth month of utero-gesta-

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tion. I found her in violent convulsions with all the symptoms enumerated in the beginning of this paper. She was given chloroform by inhalation until the muscular system relaxed, and on any sign of recurring paroxysm the chloroform was used again. As soon as she was able to swallow, I gave her a full dose of jalap, calomel and bicarbonate of soda, thus producing copious watery evacuations. She was then placed upon a mixture of digitalis, citrate of potassium, compound spirits of juniper and spirits of nitrous ether, and ten days from this date she was delivered of a healthy male infant. The urine, on examination before delivery, was found to be loaded with albumen. On the fourteenth day after, there was only a trace; on the twentieth no si n of it, and there has been no return since.

NASO-PHARYNGEAL CATARRH.

By Z. T. Magill, M. D., Nicolaus, Cal.

THE description of chronic catarrh of any mucous membrane, will serve for that of nasal catarrh. Although the causes may differ materially, we have a chronic inflammation marked by an afflux of blood to the parts, producing swelling, hypertrophy or atrophy and an alteration in the quantity or quality of the secreted mucus. The causes of catarrh usually assigned are "catching cold", and in this country, owing to our dry summers, the inhalation of an atmosphere charged with dust. Persons following certain trades, as millers and stone-cutters, are liable to become victims from lodging of fine particles of flour and stone on the mucous membranes, or from exposure to irritating gases. Some of the zymotic diseases, as measles, scarlet fever, diphtheria and small-pox, may leave the patient with coryza. Syphilis, scrofula, tuberculosis, malaria and, in fact, any depressing disease, places the system in a condition to get up a catarrh, or by the action of the above named influences on the system, and upon the nasal mucous membranes, produces a secretion of unhealthy muco-pus that furnishes a fertile soil for parasitic growths that may infest the most remote sinuses

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and convolutions of the turbinated bones, there having a habitat pretty secure against therapeutic attacks.

Again is it not probable that in many cases parasites are the direct irritants or the result of spontaneous granular degeneration of epithelium? Dr. Flint suggested the theory that coryza is not due to a cold but to a parasite.

"Chronic nasal catarrh embraces those more or less persistent affections of the nasal chambers with symptoms resembling those of acute coryza." (H. Allen.) It has been observed that persons who labor in sulphur mines or mines containing much sulphur are not subject to nasal catarrh, and, if affected when commencing labor, soon recover. If this prove to be true, may we not infer that it is due to the action of sulphur on a parasitic growth? Then again let us notice the list of remedies most vaunted in the treatment of this loathesome malady, and we shall find that they are antagonistic to these growths. Among the remedies usually employed we may mention the alkaline solutions, carbolic acid, iodine, nitrate of silver, sulphate of zinc, chloride of zinc, calomel, iodoform, the galvano-cautery and others, almost all of which are parasiticides, but owing to the difficulty of applying remedies to these cavities, there always may be a nidus in which a breeder is left to multiply and invade new fields or reinfest the old, and our work is to be done over again. Chronic nasal catarrh may be divided, according to location, into nasal and post-nasal. There may be a nasal catarrh limited to the nares proper, stopping at the posterior ends of the turbinated bones and septum, a post-nasal catarrh, confined to the vault of the pharynx, and a catarrh of the whole tract including the posterior wall of the lower pharynx, called naso-pharyngeal catarrh. Pathologically speaking, there are three varieties, the simple, the hypertrophic and the atrophic. In a simple catarrh there is an inflammation of the mucous membrane manifested by the secretion which is more or less profuse according to the severity of the disease. The afflux of blood to the parts increases the nutrition of the glands, so that they manufacture and pour out an abundance of mucus, the discharge is yellow with mucus and pus corpuscles, half formed cells and broken down detached epithelium. There is little swelling but simply an intense red-

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ness, and the whole surface is covered over with particles of irritating whitish secretion. There is little or no pain, but an uneasy sensation and a tendency to frequently blow the nose and hawk to get rid of the excessive discharge. The most annoying symptom is the constant running from the nose. This may terminate spontaneously or be cured after some weeks. If allowed to continue for months it may assume the hypertrophic form, which is really another advanced stage of the disease. In this the inflammatory action has produced such a hypernutrition that the cells form new hypertrophic tissue which lies in ridges in the vault, partially blocking up the nares. The appearance is that of a hypertrophied, boggy, inflamed membrane, over which there may be a stringy mucus or yellowish green, sticky pus. There is a stuffy sensation and a disposition to draw it down and hawk it up. There is often ringing in the ears from extension of the catarrh to the Eustachian tubes; the dropping of mucus down the throat at night while asleep causes a coughing spell in the morning to remove it. The sense of smell may be greatly impaired, especially if the disease is of long standing, and the mucous membranes are affected in which the olfactory nerves terminate. After persisting in this form for months and years, the catarrh gradually merges into the atrophic stage.

This condition is most common in people of middle and advanced age, seldom seen in the young. This is probably due to the fact that after the meridian of life the glands degenerate, losing a part of their secreting cells, and the entrance to the glands becoming contracted or destroyed, possibly by parasites. The hypertrophic tissue is absorbed, causing an increase in size of cavities. The mucous membrane, being stretched smoothly over the bones and cartilages, appears dry, glazed and shining, showing the blood vessels plainly. From lack of nutrition ulcers may form on the septum or turbinated bones. These crust over, and become dry and disagreeable, causing the patient to dislodge them with his finger, leaving a very convenient surface for dust to lodge upon, which is facilitated by the nares being enlarged. We may have atrophy in one part of the nasal cavity, and hypertrophy in another at the same time. Atrophy usually begins in the anterior chambers, while there is still hypertrophy

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in the posterior, diminished secretion from one and increased secretion from the other necessitating a variation in the treatment. In the atrophic stage there is dryness of the nose and pharynx, a lack of secretion with hard dry crusts. There is frontal headache and weak olfactory sense.

Treatment will depend on one's views as to etiology, as well as the pathological conditions found upon examination of nares. Here the old adage, that "cleanliness is next akin to godliness", will apply. The alkaline solutions, owing to their solvent effect on the mucus, are among the best cleansers. The well-known Dobell's solution is a very efficient one. In it we have the solvents with antiseptics and glycerine rendering it bland and pleasant. Those preferring the dry treatment can reach cavities pretty well with insufflators. This mode of treatment is perhaps best adapted to treatment of simple catarrh after cleansing with the spray. As in this stage the object in view is to remove the cause and reduce the inflammation, astringents naturally suggest themselves, some of which are parasiticides. Others that are not parasiticides can be conveniently combined with those that are, either in solution or powder. Tannin, alum, nitrate of silver, sulphate of zinc, ferric alum, chloride of zinc, sulphur, carbolic acid and others are used with benefit, in strength according to the severity of the attack, mild cases requiring weak solutions, and the severe, stronger ones. If there is pain a half hour after using astringents, a spray of a two to four per cent solution of cocaine will relieve it. The hypertrophic form or stage requires stronger applications in order to get rid of the superfluous tissue, as the solid stick of nitrate of silver touched to the swollen parts or caustics applied with a probe end wrapped with cotton. A more rapid and effectual way is to apply cocaine and crush off the hypertrophic tissue with forceps, or remove it with the galvano-cautery that is just now being used so extensively. The atomizer is considered a safe and most effectual instrument for applying medicines to the nasal and pharyngeal cavities. By its use we are not apprehensive of the fluid entering the Eustachian tubes, as we might be in using the douche or posterior nasal syringe. A very excellent instrument is Snowden's "perfected" atomizer described by Wm. R. D. Blackwood,

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M. D., having a set of six small tubes in lieu of one bottle, each of which may contain a distinct medicament. Three atomizing tubes are adapted to either vial, one straight at nozzle end and the other two bent at angles, to degrees that are indicated for their uses.

In the atrophic we have the reverse of conditions enumerated in the hypertrophic form of the disease. The secretions are scant or absent, and the glands are diminished, indicating a line of stimulant treatment with emollients instead of astringents or caustics. Tincture of iodine, myrrh, consanguinaria, iodoform, carbolic acid and lycopodium are some of the remedies useful in this stage. Between applications of any of them or combined with them, the patient should make frequent applications of vaseline or glycerine to keep the mucous membrane soft and moist, thus imitating their normal action, the general health of patient must not be lost sight of. If syphilitic, a specific treatment must be given; if scrofulous or anemic, cod liver oil, iron and the bitter tonics are indicated. The hygienic surroundings should be made as favorable as possible, and the wearing of flannel underclothing enjoined.

BANDAGE AND REST.

By Flavel B. Tiffany, M. D., Kansas City, Mo.

[*Read before the Jackson County Medical Society.*]

I WISH to call your attention briefly to the bandage and rest as a therapeutical agent in the treatment of affections of the eye.

In general surgery bandage and rest is the *sine qua non*. To it, and to antiseptics, the surgeon gives largely his attention.

By the ophthalmologist bandage and rest has not received the attention that its virtue merits. It is not my purpose to enter into a lengthy discussion of this subject. I merely wish to call the attention of the society to the new method of bandaging the eye after capital operations, such as the extraction and needling of cataract, iridectomy, sclerotomy, tenotomy and stra-

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botomy, or any operation on the eye where it is desirable to support the cornea, keep the eyes at rest, and exclude light and all irritating substances from an impaired orb.

I also wish to call your attention to the most excellent results obtained from this therapeutical agent (bandage) in the treatment of ulcerations of the cornea in keratitis, especially marginal and phlyctenular, as well as in pannus and other affections, in which it is desirable to keep the globe at rest, to prevent irritation from the movement of the lids against an inflamed cornea, to protect from light, dust and other irritants.

In the last meeting of the Ophthalmological Section of the American Medical Association this subject was discussed. The isinglass plaster was spoken of by Dr. Michel, of St. Louis. In the June number of the *American Journal of Ophthalmology* appeared an article on the subject of bandaging the eye after cataract operations by Dr. J. J. Chisholm, of Baltimore, in which he sets forth many of its virtues. In the last number of the *Archives of Ophthalmology* Dr. Michel, of St. Louis, came out with quite a lengthy article on the subject, claiming priority in its use; stating that he has employed it to the exclusion of the compress bandage for eleven or twelve years, with most excellent results. But neither of these gentlemen speaks of it as a therapeutical agent in other affections of the eye. Dr. Chisholm heads his article thus: The Rational Method of Treating Cataract Patients to the Exclusion of Compresses, Bandages and Dark Rooms." After the extraction of the cataract, he says, the eye is kept closed by a piece of diaphanous isinglass plaster 2½ in. long. by 1½ in. wide. The piece of plaster, rendered pliant by soaking in water, is spread on the closed lids, from brow to cheek, and carefully adjusted by stroking it with the keratome (rubber spoon). "The plaster soon becomes dry, and the patient is ready to walk from the operating table to his bed in the fourth story of the hospital." Dr. Michel takes exception to the size of the plaster, as above given, thinks narrow strips are better, giving his reasons, which to my mind are not valid. I have repeatedly used the same sized bandage that Dr. Chisholm speaks of and in the same way, often operating for cataract, and I am well pleased with it. It is even more than he claims. It is

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light, and adhering as it does closely to the lids and cheek, it insures a continued muscular tonic, keeping the free edges of the lids in juxtaposition. "It does not trammel any other part of the body, and no movement on the part of the patient can possibly disturb it." Dr. Chisholm is of the opinion that before the year is out, it will be universally employed to the exclusion of the old way of bandaging the eye and committing patient and attendant to the dark room. With it there is no longer the dread of darkness to the patient, nor of the gloomy room to the attendant. The patient can move about in bed, *ad libitum*, without fear of bandage dragging upon the eye or getting out of place; neither is there any danger of its being either too tight or too loose, no danger of the patient's exposing the eye to light or straining it by his great eagerness to test his sight.

Gentlemen, I consider it a perfect eye dressing; it is light, cool and safe; and with my experience with it I am sure I shall never return to the old régime. I am using the same bandage as a therapeutical agent in treating diseases of the cornea and conjunctiva, especially in ulceration of the cornea, phlyctenular keratitis, and in marginal keratitis.

In conjunctivitis, even, it is an admirable adjuvant to other treatment. With it I am confident that ordinary catarrhal ophthalmia and iritis even, can be much shortened in their course, keeping the eye, as it does, closed and at rest. It is aseptic, and serves as a splint to the organ that requires rest and protection. It is transparent, discloses the condition of the lids, and allows the ophthalmologist to judge of the state of affairs of the deeper structures of the eye from day to day, or hour to hour if necessary, without removing the dressing.

Pacific Record of Medicine and Pharmacy.—This journal is a new departure in one respect, inasmuch as it is published partly in English and partly in Spanish, being intended to meet the wants of a large section of our own country and those adjacent upon the South. We can speak only of the English portion. This is well arranged and gives evidence of judicious editorial direction. We shall gladly welcome the *Record* to our exchange table.

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CASES FROM PRACTICE.

FRACTURE OF SKULL—EXTRAVASATION OF BLOOD—CONVULSIONS, ETC., WITHOUT NOTABLE LESION OF BRAIN SUBSTANCE.

By David Gardner, M. D.

On Saturday, Sept. 4, 1886, about 6 P. M., Thomas Calvard, æt. 33, was struck two blows with the barrel of a shot-gun, one blow falling over the left parietal eminence, not breaking the scalp, the other blow being also on the left side of the head, about one and one half or two inches from the median line of the head over the fronto-parietal suture, the wound being parallel with the sagittal suture. The scalp was penetrated to the periosteum over the posterior edge of the frontal bone. He was knocked down by the second blow, regained consciousness, was able to sit up in the wagon and to walk down a steep hill to avoid jolting. Upon his arrival at home he was assisted in walking into the house, complained of his breast and head, and seemed to appreciate that he was dangerously injured; was intoxicated at time of receipt of injury.

Saw the patient at 9 A. M, Sunday, Sept. 5; found him very restless, lying first on one side, then on the other, his limbs in a state of flexion. He could be aroused by shaking and speaking to him in a loud voice, but relapsed again into a semi-comatose condition. There was not a great deal of swelling of the wound. There was bulging of the orbit and some discoloration, pulse regular and nearly normal in volume, frequency and strength. He had urinated twice during the night, once voluntarily, in the early part of the night, and once involuntarily, towards morning. Bowels not open, tongue dry, brown, red at the sides and tip.

No paralysis was observable; no fracture of the skull could be felt at or near the wounds. The pupils were dilated.

I shaved the scalp around the wounds, introduced my little finger

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into the open wound, but could detect no evidence of fracture of bone.

I prescribed lotions of carbolized cold water, applied by soft linen cloths; administered ten grains of calomel, and, to quiet him, left a mixture of morph. sulph. gr. $\frac{1}{6}$; chloral hydrat. gr. v., potass. brom. gr. x in each dose, to be given every two hours. When aroused he complained that his head and breast hurt.

Soon after I left the house he passed into a comatose state. At 4 P. M. he was seen by Dr. Holder. He was in a general convulsion, pupils contracted, pulse 52, full, strong and regular; soon after it arose to 56. Dr. N. C. Parrish and myself arrived at 5 P. M., found patient in dorsal decubitus, respiration stertorous, jaws slightly locked. He moved and groaned when wounds were examined. Bowels had not moved, so twenty grains of calomel were put upon his tongue and water given. He probably swallowed fifteen grains; had some difficulty in swallowing. Before we left, the pulse had increased in frequency from 52 to 70, and was rather weak and irregular.

There being a difference of opinion in regard to operation, we concluded to call in Dr. Acheson, of Denison, who met Dr. Holder, Dr. Carey, of this place, and myself, at 10 A. M. Monday. Condition of patient unchanged since last seen. The wound of scalp was enlarged toward the median line one inch. The skull was bared of periosteum, but no fissure of bone could be seen or felt. The bowels had responded several times during the night, and were still acting; dejections very offensive. In view of a possible malarial element, it was decided to administer quinia sulph. in eight grain doses in solution every four hours, and to postpone further operative procedures twenty-four hours longer.

Patient sank gradually and died about 4 P. M.

As there was understood to be a difference of opinion amongst the doctors as to the indications for an operation, one physician holding that trephining was clearly indicated and offered the only chance of life, in view of the future legal procedures, a post-mortem was ordered and made by myself (Drs. Holder, Parrish and Carey being present) eighteen hours after death.

Considerable effusion of blood was found in the tissues of the scalp in the neighborhood of the wounds. Skull wall very thin, not averaging one-fourth of an inch in thickness, and at the an-

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terior inferior angle of the parietal bone, it was about one-eighth of an inch thick.

Fracture of the parietal bone two inches above its lower border, extending backward two inches irregularly, then irregularly downward and forward to within a half inch of the anterior inferior angle of the parietal bone.

No depression of fractured portion; on the contrary, rather an inclination to be elevated.

Extravasation of blood, clotted, between the dura mater and skull, about the size of the palm of an ordinary man's hand, probably three-fourths of an inch in thickness, at base of skull opposite anterior inferior angle of parietal bone. From that point the clot extended to the posterior part of the orbit towards the top of the head, two or two and one-half inches, one and one-half inches anterior to the coronal suture, two and one-half inches posteriorly.

The head was above the average size, and the clot barely extended to beneath the wounds of scalp, in the opinion of three out of four of the physicians. This could have been definitely ascertained at the autopsy, but was not thought of at that time.

Of course the source of the coagulum was from a rupture of the arteria meningea media. There was no visible lesion of the brain substance.

Agnew says in his Surgery that when, in addition to the signs of compression, there is great restlessness with muscular disturbances and convulsions, the case is probably one of laceration of the brain substance. Also Mr. Hewitt says: The post-mortem records of St. George's Hospital show that within the last few years there have been twenty-five cases of extravasation of blood between the bone and dura mater, in all of which the brain was more or less extensively lacerated.

One of the consulting physicians felt certain that trephining was indicated, that there was blood between the dura mater and the bone, but declined to take the responsibility of the operation upon the case and operation being tendered by others.

THE CONTAGIOUS DISEASES ACTS by which prostitution was regulated in a number of the garrison and seaport towns in England have been repealed by a vote of 245 to 131.

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PERI-UTERINE CELLUTITIS — PREGNANCY — DOUBLE UTERUS — ABORTION AT FIFTH MONTH — RECOVERY.

By C. Bevill, Winfield, Ark.

Mrs. P., aged thirty-six, mother of seven children at full term, and four abortions from the third to the seventh month. Has always been healthy, except before abortions, when she was troubled with more or less pain in her left side.

I was consulted in May, 1885, by her husband in regard to her flooding every few days, with some loss of blood every day. This had been so for six weeks before I saw her. Her youngest child at this time was eighteen months old; and her menstrual flow had made its appearance, twelve months before I saw her.

She was very weak from the continued loss of blood. She was much opposed to my doing anything for her, but I told her it was very necessary that she should have something done to put a stop to so much hemorrhage.

I tried, with but little benefit, different remedies, such as lead and opium, tannic and gallic acids, sulphuric acid, ergot and oil of cinnamon. The last two mentioned drugs did better than any others. However, the hemorrhage came on again with considerable pain attending it, especially in the right side. I wished to explore the uterus, to see if I could find the cause of the trouble, but this was not allowed by the patient. After some two weeks the hemorrhage ceased, and she was in high hopes of being nearly well. But this did not last long. She was seized with a severe pain in the right inguinal region, and strong bearing-down sensations in the uterus.

I now for the first time made a digital examination of the uterus. It was enlarged and sensitive, and the os was lacerated. At both sides of the fundus and in the cellular tissue the sensitiveness was such that conjoined manipulation was impossible. Recognizing that I had a case of cellulitis to deal with, I ordered opium, hot water injections, warm fomentations, and perfect rest in bed, which greatly relieved the suffering.

She soon began to bloat, or the uterus and the surrounding parts, especially on the right side, were enlarged. Morning sickness came on; menstruation ceased for two months; fluctuation was

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found in the right ovarian region. If I had had an aspirator I should have used it.

I consulted all the works that I had, or could get, perused the *American Journal of Obstetrics* for years past, and got some consolation from them. Dr. Thomas gave me more hope when he said that an abscess might discharge through the uterus. After being kept in doubt for two months, the abscess began to discharge its contents through the uterus in large amounts. Some of the discharge was bloody, others portions pure yellow pus, and it had a very offensive odor. Copious carbolized injections were now used. Menstruation now appeared again. Her health was greatly improved.

This brought us to February, 1886. The pus was still coming away at times. She was yet very sensitive over the right side of the uterus, though she could bear conjoined manipulation very well still, which showed the uterus much enlarged, and adherent to the right, giving her pain when the uterus was pressed upward with the finger. After some two weeks the tenderness had given way enough for me to discover that on the right upper side of the uterus there was an enlarged portion, or some growth attached to it. About the last of February, 1886, she menstruated slightly, and the flow was followed by a profuse discharge of pus and bloody water. This continued about one week, and threw my patient back disheartened. Tonic treatment seemed to help her again. Her appetite improved for a while, say three weeks.

She went on very poorly until about the last of April. Her menses had not appeared since February, and morning sickness came on again, and there was considerable soreness in the left side at the time. The abscess was again discharging pus in considerable quantities. All this time she had refused to be examined with a speculum, or to have a consultation.

I finally told my patient that I would give up the case unless she would let me do as I deemed best. She finally consented. I took her home to my office, and had Mrs. Bevill assist me in the examination with the Sims' speculum. The following condition was found: cervix elongated and enlarged, measuring three inches across at the outer os, and two inches long. The os was lacerated on its left side down to within one-half inch of the inner os, and covered with granulations. A sound passed into the uterus showed the depth to be five and three-fourths inches. Cotton wrapped on

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the sound brought down pus from the cavity of the uterus. I then passed a sound made of a long silver catheter (female). It passed with ease. Pressure over the enlarged portion of the uterus (*i.e.* the tender portion before spoken of,) was followed by a discharge of pus.

I applied caustic lightly to the granulated cervix, at intervals for some time, and applied cotton saturated with alum, finely powdered, tannic acid and glycerine. The os improved so far as the granulations were concerned. Her general health began also to improve again, but still no menstruation had appeared; but owing to so much pus being poured out every few days; I thought that was the cause of no menstrual fluid being seen.

By May 10, 1886, a tumor could be plainly felt in the left inguinal region, and the patient asserted that she felt something move in it. I could feel the enlarged uterus still to her right, and bound down by adhesions from the cellulitis. Passing the sound again revealed the uterus six inches deep. Pus still passing. Tumor in left side movable. No fluctuation on palpation.

On the 20th of May I had her brought to my residence in order to dilate the os. I inserted a tupelo tent, and let it remain twenty-four hours. It did but little good. I then used a sponge tent, let it stay twenty-four hours, removed it as directed by Dr. Sims, and passed my index finger up into the uterus without any trouble. I could find nothing wrong, could feel the tumor in her left side distinctly. Passed a sponge to the fundus of the uterus with a Sims' sponge holder, and brought down plenty of pus. I was now more puzzled than ever. The woman would assert that she could feel the child move. I could not believe it to be the case until on June 1, I found the tumor still enlarging, and by putting two fingers in the vagina, one under the uterus, the other under the tumor, my left hand having been dipped in cold water was suddenly applied over the tumor, and behold, *I felt the fetus move.* This was repeated several times with the same result.

Was it tubal or abdominal pregnancy? Not the former, as there would then have been more disturbance; more likely the latter. But by close attention to the case I came to the conclusion that there must be a double uterus, one evidence being the fact, that when the fetus was moved, the uterus on her right would move. June 17 she was seized with pains followed by flooding. I went to see her, gave fluid extract of black-haw. She became easy, but still

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flooded till July 4. She could not stand on her feet without flooding considerably. I then found the os about like it had been for three months. I introduced my index finger, could now feel the placenta, or the edge of it at least, in the neck of the horn of the uterus. The os of this portion of the uterus, was dilated somewhat, as well as the other. I gave ergot in dram doses for twelve hours, and labor was completed with a good deal of trouble. The child was very small, about two pounds weight. It lived twelve or fifteen hours.

The mother got up in due time. Since then she has had three attacks of flooding. I never saw her in either case. The uterus is still enlarged; the old abscess still discharges some pus. The horn of the uterus that was pregnant has undergone involution and is now very small.

August 26, 1886. She is now doing well and looks well.

OCCLUSION OF THE VAGINA.

BY C. A. MANN, M. D., CHESTER, ILL.

[*Read before the Southern Illinois Medical Association.*]

February 20, 1872, I was called to visit Mrs. J. G., and found her in labor. She was a primipara, and had been in labor twenty-four hours, attended by a female "accoucheur" of limited notoriety and of quite limited ability. Her numerous vaginal examinations and her "digital solicitude" had made the vagina very sore and painful. The os uteri was partially dilated and dilatable, but the contractions of the uterus were feeble and altogether inefficient to expedite the labor. In short, the case was an exemplification of the truth of the remark of Prof. Wallace that "nothing is more dangerous than a meddlesome obstetrician." I endeavored to re-establish uterine action; succeeded after a time, and finally the labor was over. I had some difficulty in delivering the placenta on account of the very sensitive condition of the parts. I gave directions to have the vagina washed out with warm water and syringe, and gave explicit caution in regard to the matter of after treatment. I expressed the opinion that it would be better for me to see the patient again, but for economic reasons I was informed that in case it became necessary they would at once send for me.

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About three months afterward Mrs. G. came into my office, and informed me that something was wrong with her. She said that recovery from her late accouchement had been quite slow and unsatisfactory. I made a careful examination, and found an extensive indurated cicatrization, almost completely closing the entire length of the vagina. The orifice left would not admit the end of the index finger. The tissues were hard and resisting. Copulation would have been impossible. I informed the woman and her husband that an operation was required to restore her to the normal condition. I proposed to operate at once, or to go to her home and operate. They said they would let me know when they were ready for me, etc.

I heard nothing more of the case until fifteen months afterward (May 4, 1873), when Dr. Martin Moore came in haste to my office, and desired my assistance in an obstetric case. I took my instruments and accompanied him to the home of Mrs. G. I found, on examination, that she was in labor. The vagina was in precisely the same condition as at my last examination in my office. The husband informed us that he had had no satisfactory copulation since her last confinement. We could with great difficulty learn that the presentation was "natural;" the head had descended into the pelvis, satisfactory dilatation could not take place, and the uterine contractions had ceased entirely.

We prepared the patient for operation by placing her under the influence of chloroform. I at first attempted to break up the adhesions with the handle of the scalpel, as directed by Dr. Gross, but the adhesions were firm and extensive. Then with the index finger of the left hand in the rectum and a catheter in the urethra to serve, as guides, in order to avoid the formation of fistulæ, I dissected the entire vagina to almost its normal size. As hemorrhage was profuse, by the aid of Hodge's forceps I delivered her at once. We then permitted her to pass from under the influence of the anesthetic, delivered the placenta, and one of us remained with her during the night. She made a good recovery, received daily medical attention from Dr. Moore or myself, and by keeping a drainage tube in the vagina, with medicated tampons, and giving injections, adhesions of the vaginal surfaces were prevented, and complete recovery accomplished.

The woman still lives, and the husband informed us that she is a "*natural* woman now."

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I was admonished by this case to be more solicitous and diligent in the after treatment of protracted and instrumental labors.

The case demonstrates the fact that "impregnation without complete copulation" is possible. The spermatozoa, impelled by their own innate vital force, seek the os uteri and the nutritious environment furnished only by the receptive force of nature, and are not always impelled by ejaculatory force.

I do not present this case as offering anything new or original, for I found, on consulting my books, that many of the older works contain parallel cases, with full and gra phic descriptions and instructions. In Ramsbotham's Parturition, page 247, he says: "A cicatrix in the vagina, the result of sloughing under a previous protracted labor, will occasionally be found to impede delivery," and recommends "Four incisions to be made into the edge of the constricted part."

"Churchill's System of Midwifery," page 281, speaks of a "Narrow and undilatable vagina" that obstructs labor. He describes it as semicartilaginous rings or spirals, etc. Prof. Gross's System of Surgery, vol. II, page 275, gives a very satisfactory exposition of the case, and calls it "strictures of the vagina" that "interfere with coition, parturition and cleanliness," and directs the incisions to be made on each side of the vagina.

A CASE OF IRREPRESSIBLE VOMITING WITH PREGNANCY.

BY GEO. F. HULBERT, M. D., *Superintendent of Female Hospital, St. Louis. Mo.*

Kittie B., American, aged nineteen, single, servant; nervous temperament, superb physique, approach to blonde; admitted to hospital, August 6, 1886, for intermittent fever and pregnancy.—Hospital Record by Dr. E. Cole.

Neopause at fifteen, normal, no pelvic disease from neopause to time of first conception, which supposedly occurred in August 1885. Took medicines in October 1885, and aborted. Again in February 1886, suspected pregnancy, on account of exposure and cessation of menses, in latter part of January 1886. Quickening

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in May 1886, nausea and vomiting pronounced from early part of gestation, urine normal in quantity and color, sp. gr. 1017, no albumen or sugar; first test made August 6, 1886; bowels irregular, stomach unsettled, appetite capricious and most of the time *nil;* slight leucorrhea, respiration normal, no edema, general condition poor, nervous and hysterical, no pain; no venereal history. Labor began August 22, 1886; first stage thirteen hours, second stage one hour, third stage thirty minutes. Placenta retained. Uterus relaxed, and hemorrhage appeared. The hand was introduced and placenta and membranes removed; considerable difficulty was experienced in getting all of the membranes, as they were firmly adherent. Uterus contracted well after being emptied, no laceration of the cervix or perineum; child small, four pounds, immature, very weak, six or seven months of gestation.

Patient, on admission, had the appearance of one suffering from profound malarial toxemia. Stated she had chills and fever with vomiting for one week preceding. Vomiting had been constant day and night; had a great deal of nausea and vomiting from early gestation; weight when in health 160 pounds; denied positively and persistently that she had done anything to produce abortion, or that could have caused her gastric trouble. Has the manner of one laboring under a severe mental strain, is non-communicative and avoids interrogation. After a week's time of fruitless treatment for her vomiting and endeavors to gain her confidence, she confessed to having taken "very strong" medicine, and this at various times to produce abortion, given and urged upon her by her lover; also that in October 1885, she was pregnant, and succeeded in producing an abortion by use of same means. Expressed a desire for death, as she had nothing to live for. To further complicate matters, a voluntary statement was made to us by another patient who had entered the hospital three days previous to the one under consideration, to the following effect:

That she was a co-laborer of K. B., and had been for some time, had known her well and intimately; knew her condition and advised her to come to the hospital and go through her trial. K. B. refused, and said she was going to see a woman who would relieve her. At the time informant last saw K. B. she was apparently in good health, and was regularly doing a good day's work. Fl. ext. ergot was presented to K. B. to see if she could identify the drug as the one used; she at once recognized it.

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PULSE AND TEMPERATURE.

	A. M.			P. M.		
	Pulse.	Temp.		Pulse.	Temp.	
Aug. 6, '86.	—*	—		120.	—	
" 7,	—	—		106.	99.6.	
" 8,	116.	99.8		114.	100.2	
" 9,	100.	99.6		118.	101.8.	
" 10,	100.	98.7		106.	10.14.	
" 11,	86.	98.3		112.	98.4.	
" 12,	100.	98.4	confession made by	112.	98.4.	
" 13,	96.	98.4	patient	—	—	
" 14,	82.	—		—	—	
" 15,	90.	—		98.	—	
" 16,	—	—	Dilatation of cervix	—	—	vomiting
" 17,	98.	—	with steel dilators.	—	—	ceased.
" 18,	100.	—		—	—	vomiting
" 19,	—	—		—	—	recurred.
" 20,	—	—	Partial closure and re-dilatation with a	—	—	vomiting ceased.
" 21,	—	—	Barnes' dilator.	—	—	vomiting returned. Bad fainting spell.
" 22,	120. Strong.	—	Labor began	—	—	vomiting ceased.
" 23,	130. Weak.	—	Delivery completed.	92.	97.6	Dizziness.
" 24,	82.	96.		104.	99.2	
" 25,	82.	97.2		96.	100.3	
" 26,	82.	97.8	Weak.	99.	—	Desires sleep and death.
" 27,	86.	97.8	Black vomit; 1:30 A. M.; weak.	112.	Irregular and running up to 150.	96. collapsing; vomiting incessantly.
" 28, death at 7 A. M.						

*Dashes denote normal pulse or temperature.

The last dilator was removed at 2 P. M. Aug. 20. Labor began 11 A. M. Aug 22; bag of waters ruptured without any movement or pain. Shortly afterwards she began to have slight, infrequent pains, which gradually became stronger with considerable intervals of rest. At 3 A. M. August 23, os size of half dollar, and rigid all around. Head engaged in cervix, pulse strong and rapid, 120. Hypodermic of morphia. At 9 A. M. Aug. 23, head low down on floor of pelvis, os fully dilated, no pains. Ergotinine and whiskey hypodermics, nails blue, pulse fast and weak, 130; by abdominal pressure child was safely delivered. Credé manipulation for placenta, relaxation of uterus and appearance of hemorrhage; hand introduced and placenta and membranes removed, uterus and vagina washed out with sol. bichloride 1 3000. Uterus contracted firmly;

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patient dressed, and pulse 106 and fair. 10 cc. Port wine retained; absolute quiet and rest; ate tea and toast with wine this P. M.; no nausea.

Aug. 24. Hot beef-tea, spoonful of brandy. Beef suppositories, 10 cc. port wine every three hours. P. M. abdominal pain in region of gall bladder and icteroid hue more marked; nausea, hypodermic morph. sulph. and turpentine stupes.

Aug. 25. Beef suppositories. P. M. asked for tea and toast; natural movement of bowels. Hypodermic of strych. sulph. and fluid extract ergot given morning and evening.

Aug. 26. No vomiting during night; slept fairly well; first rest for some time; ate bread and milk; severe paroxysm of pain over region of gall bladder. 7 P. M. a terrific paroxysm of pain again in same locality, ½ gr. morph. hypodermic.

Aug. 27. Vomited at 1:30 A. M. black coffee ground fluid, pain worse, ⅛ gr. morphia hypodermic. 6:15 A. M. ⅛ gr. morphia for pain, uterus worse; tongue brown and sordes, refuses anything and everything and wants to die. 8 P. M. anxious, fearful, vomiting constantly, pulse rapid and failing, subnormal temperature, 96°. Some pain, lochia suppressed; morphia sulph.

Aug. 28. 7 A. M. death.

Post mortem seven hours after death. Body emaciated, general icterus. Thorax, lungs and heart normal, anemic, no evidence of old or recent inflammation. Abdomen, peritoneum and omentum normal; intestines empty; liver pale and friable; gall-bladder adherent to liver and imbedded in inflammatory deposit which extended into cellular tissue about cystic and common ducts, to its junction with duodenum. Walls of bladder thickened in peritoneal coat only. Bladder moderately distended, and could not be pressed out, the constriction being at the cystic duct ½ inch beyond its junction with bladder, and due to inflammatory deposit. No evidence of calculi; inflammation absolutely limited to above locality. Stomach: mucous membrane coated with tenacious mucus, dotted with numerous adherent black points; toward greater curvature these points looked like the particles found in the dark coffee-ground fluid with which the stomach was partially filled. Entire mucous membrane streaked and dotted with stripes and spots of congestion, some of them raised and thickened, membrane soft and in some places easily scraped off. Muscular and peritoneal coats normal; stomach dilated; spleen and kidney normal; uterus, fal

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lopian tubes, ovaries and pelvic peritoneum in normal condition for her recent delivery. Endometrium, dark, congested and necrotic in places; necrosis, superficial, fetid odor. Line of demarcation of congestion between endometrium and uterine tissue clearly marked.

I make no apology for this extended report of this case. I have headed the report "Irrepressible Vomiting *with* Pregnancy" designedly, feeling that in the light of the facts presented, there may be grave doubts as to whether the vomiting was due to the gastritis or the pregnancy, both of which she undoubtedly had.

It would seem reasonable that in my hospital experience there should be more of these cases, when we consider the class of material, conditions, social or otherwise, surrounding them, but the fact remains that out of 966 women delivered to date, in the institution during my charge, this is the first and only one in which the vomiting of pregnancy called for more than passing notice or treatment. The subject is one veiled in obscurity as regards etiology. Writers on the subject have added to this obscurity by conceiving some one particular cause as being the all important factor, and arbitrarily deducing conclusions that require only ordinary effort to construe differently. Dana stated inflammation of uterus, placenta and membrane as the important factor, when just as logically they could be due to the lowered vitality and repeated traumatisms received through the paroxysms of vomiting. Chomel, stated softening of the stomach and fatty degeneration of the liver as the etiology, yet, softening of the gastric mucous membrane and fatty degeneration of liver can be accounted for in several different ways. Bennett's idea was that ulceration of the cervix caused it. When we stop to think of the hundreds of women who have been considered as suffering from ulceration of cervix, and in whom Emmet has demonstrated a laceration, the force of this factor is appreciably weakened. It has been stated and generally received as an established fact, that primiparæ are more prone to vomiting than multiparæ; but I am constrained to respectfully question the observation. Such has not been my experience; and it certainly is not in reason with such varied etiological factors so strongly advocated, to adopt any one cause as the explanation.

Speaking from my observation and experience and in a general way, the frequency and degree of vomiting in pregnant women is determined by their physical condition. The more nearly they approach the perfect type, the less and milder the difficulty. The

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farther away from the perfect type they get, the greater and more vicious becomes the disease. It is due to a modified nutrition somewhere.

In the case reported we have three influences plainly marked; the mental, the sympathetic, the traumatic. Our patient was of nervous temperament, high strung, above the average servant; she had sinned, sacrificed all she had — her honor; had both in thought and deed committed crime; the penitentiary was her terror. The coming birth of her child, the living testimony of her dishonor, deserted by the one who should have stood by her in her hour of need. This influence is decidedly manifest in the pulse record, where we see the change brought about by her confession and the quietude gained by our assurance that no penitentiary awaited her, and the promise of finding her babe, when born, a home. The change was general; her look was better, notwithstanding slight, if any amelioration of her vomiting.

The sympathetic influence is manifested in the effect the dilatation of the cervix produced. This was the last means resorted to. August 16, the first dilatation was made; the cervix was fully an inch long and closed, a steel dilator was used having parallel arms (Ellinger's), which opened the cervix to the size of a quarter dollar. The internal os was attacked as well as the external. The result was marked; her vomiting ceased and remained so until August 18, when she again commenced vomiting. The os had partially closed. August 20, the cervix was opened with a Barnes' dilator to the size of a silver dollar with the result of eighteen hours of quietude when she again vomited. August 22, labor began and nothing was done to stop it, as it seemed the only hope. The materia medica had been exhausted both for internal and local remedies. From the commencement and during labor and until August 27, the day before death, vomiting ceased; and she took, in limited quantities, nourishment and port wine. If local irritation is a cause of the vomiting in pregnancy, why did not she vomit more during the manipulations, and progress of her labor than she did when every thing was quiet? No; the idea of local irritation being the leading feature is not tenable. The fact is, nervous energy and influence were otherwise engaged during these acts, and the stomach was at rest.

The traumatic influence; in this she received the shock of delivery, and under the influence of her incessant vomitings the abdom-

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inal contents were subjected to a process of pounding, which in conjunction with her lowered vitality, amounted to something, namely, the local inflammation about gall bladder and ducts, and the condition of the stomach. Add to these the abortion in October, and the ergot. It would seem that the the etiology in this case at least, was visible and tangible. There is certainly enough here to make most any woman vomit. She was violated physically most murderously.

At the post-mortem in this case, I was strongly inclined to consider that she first had a gastritis from some irritant taken to produce abortion, and so made certificate; but a more extended study of the case completed has led me to the opposite conclusion, and I say it was *of* pregnancy, and not *with* pregnancy, and was aggravated made irrepressible by at least three influences, the mental, sympathetic and traumatic; of the last, in these cases, I am constrained to say, a *most important factor.*

That the vomiting was not due to a primary gastritis, I believe, for the following reasons: Absence of pain, the use of ergot only, condition of tongue, testimony of friend who saw her one week before admission, and effect of treatment.

JAMES GOODCHILD WAKLEY, M. D., M. R. C. S., the youngest son of the founder of the "*Lancet*", and for twenty-five years its editor, died of epithelioma of the tongue and pharynx, August 30, 1886. He had never practised medicine, but few of our profession have done better service for the profession than did he in the management of that ablest of medical journals. The successor of Dr. Wakley is a nephew who has been for some years associated with him in conducting "*The Lancet*", and who will continue the name of Wakley in the editorial chair.

DRUGS AND MEDICINES OF NORTH AMERICA.—The June, 1886, number of this valuable quarterly commences the second volume. It contains the letter-press and illustrations of the Liriodendron Tulipifera and Magnolia. We are glad to see that the publishers are planning to issue the succeeding numbers at shorter intervals than quarterly.

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EDITORIAL.

THE INTERNATIONAL MEDICAL CONGRESS.

The success of the International Medical Congress, which is to be held in Washington, D. C., next year, can no longer be questioned. Reports from physicians who have been abroad this last summer, warrant the confident expectation that large delegations of eminent physicians from the various European countries are already laying their plans to attend the Congress.

The differences which arose between some of the most prominent members of the profession, in our own country, and which, for a time, threatened to render the meeting an entire failure, have been, to some degree adjusted, and, to some degree, subordinated to a recognition of the paramount importance of the general interests of the profession at large over the personal dignity of the individual.

The officers who have been selected for carrying out the arrangements are men of ability and energy, who will spare no effort to make the occasion one of profitable enjoyment to the many guests who are expected from abroad, as well as to the much greater number from all over our own country, who will crowd to the National capital for the sake of meeting and hearing the ablest representatives of medicine and surgery from beyond the ocean.

We anticipate very much of profit to our own country from the results of this meeting. It will bring the profession here into relations of personal friendship and intimacy with that of the old world, as a result of the visit to us of so many of their leaders, which would never be reached, so long as the visiting was done solely by Americans.

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Americans have been honored guests at the meetings of the International Congress held in various European centres, and now the opportunity is afforded us to honor ourselves more highly in doing honor, as becomes our nation, to the representative men of the profession throughout Europe.

Let us all unite to make this meeting of the International Medical Congress the best possible success by burying all feelings of personal pique or slight, or even of injury, and showing to the world that the profession of the United States is heartily one in welcoming our friends from abroad.

Let our best men attend, and carry with them the evidence of their interest in papers giving the well digested results of their experience. So shall we do the highest honor to our guests in treating them to the choicest results of our labors, and at the same time elevate the standard of professional work here.

STATE BOARD OF HEALTH REQUIREMENTS.

In an editorial in the August Courier we called attention to a resolution which had just been adopted by the Missouri State Board of Health, and which we spoke of as being similar in effect to that passed by the Illinois State Board of Health.

In a very polite note from Dr. Geo. Homan, the efficient and able secretary of the Missouri State Board of Health, our attention is called to the fact that there are material differences between the resolutions as adopted by the two bodies.

Thanking him for the courtesy, we take pleasure in publishing together the resolutions that our readers may compare them.

The following is the resolution adopted by the Illinois State Board of Health:

Whereas, the continuous graduation of forty-five (45) per cent. of the total number of matriculates of a medical college—due allowance being made for the average annual loss—must be accepted as prima facie evidence that, practically, every candidate is gradu-

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ated without regard to competency or qualification; therefore, be it

Resolved, That no medical college be recognized as in good standing within the meaning and intent of the Act to Regulate the Practice of Medicine in the State of Illinois, the aggregate graduates of which college amount to forty-five (45) per cent of its aggregate matriculates during the period of five (5) years ending with any session subsequent to the session of 1885-86.

The resolution adopted by our Missouri State Board of Health is as fol

Resolved, That in future a percentage of graduates to matriculates of forty-five (45) or over, will be grounds for refusal of registration of diploma, and issuing of certificate to graduates of a school otherwise in good standing; provided, however, that before such action is taken the said school, whose diploma is presented for registration be notified, and an opportunity given the faculty thereof for satisfactory explanation to the State Board of Health.

Resolved, That all recognized medical schools in this state be promptly notified by the secretary, of the foregoing resolution of this board.

It is apparent that the resolution of the Illinois Board of Health is more positive, perhaps it would be appropriate to call it more arbitrary in its bearing. Probably the public sentiment of that state has been educated up to a point which will tolerate a more rigid enforcement of such requirements than would be found practicable in our state.

We shall be very glad, indeed, if the enforcement of the resolutions adopted in these two sister states shall prove an efficient means of elevating the standing of the profession.

We would again urge upon our readers in this state and in other states where there are laws to "regulate the practice of medicine," the importance of an earnest effort to secure the election to office of men who will without fear or favor enforce the law.

Let no physician give vote or influence in favor of prosecuting attorneys who shirk the manifest duty of taking the necessary legal proceeding to enforce the existing law. Keep your eye upon the officer and if he shall become a candidate for re-election, try him by

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the test whether he has been faithful in the discharge of this duty. Tried in that balance, most of the prosecuting attorneys who have held office during the last term are found wanting. And the same may be said, in truth, of many of those who sit on the judicial bench.

THE PROPOSED NEW STATUTE REGULATING DISSECTION.

The statute regulating dissection now in force in this state, is so framed that a superintendent of a public hospital, poor house, etc., may deny altogether the dead bodies of paupers to those desiring dissecting material.

Its rigid interpretation has thrown most embarrassing obstacles in the way of medical education. In order to reform this state of things, and to protect both superintendents and the profession, an effort is now making that promises to accomplish that object most satisfactorily.

In another part of the Courier (p—) will be found a copy of the proposed statute, together with the resolution adopted at its last meeting by the Missouri State Medical Association, endorsing the movement. This draft proposes nothing that is absolutely novel. It is compiled from acts *now in force* in Pennsylvania and Illinois, incorporating the main points of both. These acts have proven most satisfactory in their operation, and since our immediate neighbor, Illinois, enjoys such freedom, we cannot afford to let our schools suffer incontrast; they do now suffer severely. Hence, consideration for our own institutions demands of us to see to it personally and collectively, that the act is adopted at the next legislature, meeting in January, 1887.

Copies of the statute will be sent to every doctor in the state whose name stands in the directory, in the course of the month; those not receiving are requested to send for a copy to the secretary of their local medical society, or to Dr. Charles A. Todd, St. Louis, Chairman of the State Committee on Dissecting Act.

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A general meeting of representatives of the different chartered medical schools of the state, and of the State Committee on Dissecting Act, was held in September, and final arrangements agreed upon for securing a complete canvass of the state.

We wish to impress upon each member of the medical profession the importance of his individual cooperation.

THE DETECTION OF CHRONIC BRIGHT'S DISEASE.

In these days when more than ever before the attention of physicians, and the laity as well, is directed to the consideration of renal disease, we are all specially interested in any observations with regard to the detection of obscure forms of such disease.

The more carefully and thoroughly physicians examine their patients, and the greater accuracy we attain in chemical and microscopical testing, the less frequently will those cases occur in which one physician will make a diagnosis of "Bright's disease of the kidney" while another professional brother will pronounce "the kidneys perfectly sound."

In a paper published in the *Medical News*, Aug. 28, 1886, Dr. Charles W. Dulles in reporting a very interesting case of chronic Bright's disease, calls attention to one or two practical points which seem worthy of special notice.

First, he notes a sign observed in the physical examination, which experience has led him to regard as being of peculiar significance, viz., "a loud, ringing or booming second sound of the heart," which he compares to "that which is heard when one presses the palm of his hand pretty firmly against his own ear, and at the same time taps the back of his head with his forefinger." He regards this sound as indicative of a moderate degree of hypertrophy of the heart.

Secondly, he calls attention to a mode of securing the specimen

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of sediment for microscopic examination, which avoids to a considerable extent the risk of overlooking or failing to discover morbid elements present in the urine.

He regards it a matter of considerable advantage to allow the urine to settle in a vessel with straight sides rather than in a conical one, as recommended in most of the books. Tube casts, especially the hyaline casts, when only a few are present, may readily lodge upon the inclined sides of a conical glass and fail to reach the bottom. He much prefers to use a test-tube with a foot.

After allowing the urine to stand for twenty-four hours in such a tube having a piece of paper pressed down upon and around the top to keep out foreign particles, he takes a long, pointed glass tube, closes the upper end firmly with his finger, pushes the point through the centre of the paper cover of the test tube to the bottom of the urine. Then on removing the finger the bottom layer of urine, containing the deposit of twenty-four hours flows up into the long tube. He then carefully twists a piece of soft paper over the upper end of the small tube, or stuffs a little absorbent cotton into it, to keep out foreign substances, and allows the apparatus to stand undisturbed for twenty-four hours longer, during which time the whole deposit settles in the lower end of the small tube. Then closing the upper end of the small tube with the finger he withdraws it carefully from the test tube and allows the two or three drops nearest its point to run out on a slide in two or three places, covers them with thin glass and puts them under the microscope.

By attention to such details it is possible to secure a typical specimen of the deposit, one which will be very certain to contain casts, if any are present, and one the examination of which will enable the physician to pronounce with a good degree of positiveness for or against the presence of renal disease.

These suggestions of Dr. Dulles are practical, valuable and well worth the notice of practitioners.

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EXCESS OF URATES AND THEIR ELIMINATION.

In a paper published in a recent number (Aug. 21) of the *Med. and Surg. Reporter* is an excellent summary of our present knowledge as to the source of the urates and the proper means of securing their elimination when present in excess.

Contrary to the old theory that an excess of urates is due to renal inadequacy or deranged renal function and consequently an evidence of renal disease, the author of the paper, Dr. T. C. Smith' shows from the works of the latest writers on physiology and pathology that "the source of the urates is imperfect liver digestion." The nitrogenous material which is taken into the circulation from the stomach and intestine is not there fully elaborated and ready for tissue building. It is in the passage of the blood through the liver that its elements are perfected and fitted for the use for which they were intended. Two ways are noted in which the liver may be overtasked. An excess of nitrogenous food may be ingested, or the powers of the stomach may be impaired and its share of the work of digestion be, therefore, incompletely executed. In either case an undue amount of this work will fall upon the liver. If this overtaxing is continued for a length of time, the liver must of necessity pass on much of this material imperfectly elaborated. Hence we have an excess of urates in the renal discharge, not evidencing in such cases as these an excessive waste of tissue, for this material has never been tissue at all, but the failure of the digestive organs, particularly the liver,to elaborate material for tissue repair and tissue building.

The presence of such excess of urates in the blood may be manifested by a variety of symptoms, by a so-called bilious attack, a sick headache, neuralgia or a rheumatic attack.

For the immediate relief of these symptoms due to excess of urates in the blood, the condition which has also been denominated lithemia, the administration of the potassium salts, to facilitate the elimination of the urates, is followed by prompt results. But to

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effect any permanent relief and prevent a reaccumulation of the urates in the circulation, "we should cut off all excess of animal food, and reduce the amylaceous articles of diet to the real needs of the system."

In the cases where the urates are excessive, although no excess of proteids is taken in the food, and where digestion seems to be good, our author recommends the administration of hydrochloric acid well diluted and sweetened to the taste.

Another important agent, and one that is too often overlooked, is pure water. In all cases where an excess of urates is found in the urine, it is well to advise our patients to drink freely of pure, soft water. As our author observes, "among the best mineral springs in the world, will be found the cistern of good pure water at our own door."

MYALGIA, OR MUSCULAR RHEUMATISM.

Dr. A. B. Arnold, writing in the *Philadelphia Med. Times*, July 24, 1886, calls attention to the painful affection designated above. He prefers the first term, inasmuch as it does not imply any theory as to the pathology of the affection, but would not object to the latter, provided it be understood that the word rheumatic merely signifies "the effect of atmospheric influences," which are acknowledged to favor the development of the affection.

"The essential symptom of myalgia * * * is the sudden accession of a diffused pain, chiefly referred to some muscle or a group of muscles. When the pain or tenderness is limited in extent and of a more acute character, it is probable that the aponeurosis or tendon of the muscle is mainly affected. Occasionally the pain is of a dull, aching kind; more frequently it is of a tearing, dragging nature. It is started and aggravated on movement, but even during perfect rest there remains a feeling of soreness and tiredness resembling the peculiar sensation of an over-fatigued limb. Deep

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pressure also causes pain. The patient seeks to assume a certain position of the body which he finds to give him some relief. No outward change of the painful muscle is visible, fever is rarely present, and no sequelæ occur."

As to the etiology of the affection, Dr. Arnold admits in most cases the influence of exposure to draughts of air, especially when the person is heated from muscular exertion. Sometimes a muscular strain or even the rupture of some of the fibrillæ may be the cause.

A most distressing form of this affection is that known as rheumatic headache, where the occipito-frontalis muscle is involved, and the scalp is so sensitive that the patient dreads the use of the comb and brush. The pain is steady, severe, not localized, sometimes extending down into the nape of the neck and the shoulders. Pain from a cerebral tumor or abscess is far more intense and persistent, and is generally distinctly localized.

Wry-neck, pleurodynia and lumbago are other forms of myalgia. Pleurodynia is sometimes mistaken for pleurisy or heart disease by the patient; but these are readily excluded by physical examination. Intercostal neuralgia is characterized by the presence of the *punctæ dolorosæ* which are not found in pleurodynia.

In all these forms of the affection when the pain is very severe, nothing is so promptly effective in affording relief as the hypodermic injection of morphia. Stimulating and anodyne liniments are effective in many cases, while the application of dry heat serves a better purpose in others. A full dose of Dover's powder with a hot lemonade will usually secure a night's rest and moderate the suffering on the following day. Stimulation with the electric brush frequently acts like a charm, while in chronic cases the persistent use of the galvanic current is frequently most serviceable.

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BOOK REVIEWS AND NOTICES.

INDEX-CATALOGUE OF THE LIBRARY OF THE SURGEON-GENERAL'S OFFICE OF THE UNITED STATES ARMY, Vol. VII. Insignarès-Leghorn. *Washington: Government Printing Office*, 1886. 4to., pp. 959; cloth.

Each new volume of the Index-Catalogue doubly enhances the value of this work which Dr. Billings has given to the medical profession.

The present volume contains 14,688 author titles, representing 5,987 volumes and 12,372 pamphlets. It also includes 6,371 subject titles of separate books and pamphlets and 34,903 titles of articles in periodicals.

The subjects occupying most space in the volume are *Labor* with 149 pages of titles, *Intestines* with 61 pages, *Kidney* with 44 pages and *Larynx* with 43 pages.

The Medical profession of the United States may well be proud of this work which the government is doing. It is a credit to our country.

THE FORMATION OF POISONS BY MICRO-ORGANISMS. A Biological Study of the Germ Theory of Disease. By G. V. BLACK, M. D., DD.S. *Philadelphia: P. Blakiston, Son & Co.*, 1884. 12mo.; pp. 178; cloth.

This little volume embodies a brief history of the germ theory of disease, together with the result of careful observations of the author on a subject which is absorbing much thought and study of some of the most eminent students of physiology and pathology in our own and other countries, viz., the production of poisonous alkaloidal principles, as ptomaines, etc., by the action of bacteria.

The book is well worthy of attentive perusal.

A SYSTEM OF PRACTICAL MEDICINES BY AMERICAN AUTHORS. Edited by WILLIAM PEPPER, M. D., LL.D., etc. Assisted by Louis Starr, M. D., etc. Volume V. Diseases of the Nervous System. *Philadelphia: Lea Brothers & Co.*, 8vo., pp. 1326; cloth or sheep. Sold only by subscription. (St. Louis. J. Holdoway & Co.)

In noticing the issue of this concluding volume of the "System of Practical Medicine by American Authors," we must allow our-

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selves the pleasure of congratulating editors, contributors and publishers upon the eminent success which has attended their labors.

No such work has been attempted before in this country, and this has been so admirably done that it reflects honor not only upon the individuals identified with it but upon our country.

This fifth volume contains the contributions of our foremost writers on diseases of the nervous system, and embodies the most recent studies and observations of the best men of the profession in this department of medical science which has made most rapid and substantial progress in recent years.

We would advise every medical practitioner to possess himself of Pepper's "System of Medicine."

A Reference Handbook of the Medical Sciences. Embracing the Entire range of Scientific and Practical Medicine and Allied Science by various writers. Edited by Albert H. Buck, M. D. Vol. III., Fac.—Hys. Illustrated by six chromo-lithographs, and 718 fine wood engravings. *Wm. Wood & Co., New York.* Supplied to subscribers only. Quarto; pp. 813. Price per vol., cloth, $6.00; sheep, $7.00: half morocco, $8.00.

This third volume fully sustains the expectations raised by the two preceding ones. One of the most interesting and valuable articles in this volume is that on hospitals, by Edward Cowles. The plan which he advocates with regard to their management is an admirable one, and might well take the place of that which has been for many years in vogue in St. Louis. Another interesting article is that on the "Movements of the Heart" with illustrations reproduced from instantaneous photographs, showing the changes in form which the heart undergoes in its action.

The articles on Habitations, General Principles of Construction, and General principles of House Plumbing are well written and contain information of value to every householder and physician. The articles on Fevers are well written and suggestive. That on Edible and Poisonous Fungi is valuable and handsomely illustrated. But it is useless to attempt to point out all the interesting features of this work. Each succeeding volume shows more and more conclusively its value in the directions indicated by its title. It is not a system of medicine but "A Reference Handbook of the Medical Sciences" and we know of no other publication which approaches it in value as such.

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REPORTS ON PROGRESS.

NERVOUS DISEASES.

REPORTED BY FRANK R. FRY M. D.

Atrophy Occurring in Hysterical Paralysis.—DR. J. BOBINSKY reports from Charcot's clinic four cases of muscular atrophy occurring in hysterical paralysis. The absence of trophic symptoms has always been considered a cardinal diagnostic point between paralysis due to hysteria and paralysis due to other causes. Now, however, in view of the present facts, this negative symptom loses part of its value. In two of these cases the paralysis was monoplegic, in the other two hemiplegic, without facial paralysis. The characteristics of this hysterical muscular atrophy are: first, it is more or less extended; second, there are no fibrillary twitchings; third, the idio-muscular excitability appears to be normal; fourth, electrical excitability diminished in proportion to amount of atrophy, but no degeneration reaction; fifth, the atrophy may be rapid; sixth, its retrogression appears alse to be rapid. Bobinsky looks upon this atrophy as a simple one, that it is not dependent on any material lesion of the gray matter of the spinal cord, or of the peripheral nerves. He also believes it to be distinctly trophic, the nervous system not, however, presenting any change recognizable by our methods of investigation; in short, a purely dynamic alteration, analogous to the changes which Charcot believes to take place in the spinal cord in atrophies consecutive to joint lesions.

The important part of this communication is not so much in the theory of its production as in the fact that an atrophy of a paralyzed muscle may be due to hysteria.—*Jour. of Mental and Nervous Diseases*, July, '86.

Electric Dosage.—The Committee on Electric Dosage, consisting of Drs. Geo. W. Jacoby, W. R. Birdsall and R. W. Amidon, made the following report to the last meeting of the American Neurological Association, held recently in New York:

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"The committee reports that special rules, applicable to all cases for the use of the current strength, or for the length of time to be devoted to each application of electricity, do not exist, and in the nature of things can not be formulated; that all conclusions arrived at by any special investigator or series of investigators—no matter with what mathematical accuracy these conclusions be expressed—can only be arrived at empirically, and are dependent on private experience and personal views. Therapeutic experience is too weak a foundation upon which to build an edifice of such magnitude as electric dosage.

The committee, however, recommend the employment of all possible accuracy, in concordance with present scientific knowledge, in the application of electricity. It advocates the use of the means adopted by the International Electric Congress of 1881; also the use of an accurate galvanometer, divided according to this system [i. e., into milliampères, Rep.]. Furthermore, the committee recommend the adoption of electrodes of certain diameters with their square distinctly marked on them in cms. (Erb's Normal Electrodes.) It would also recommend that a system of expressing the current used, in accordance with these facts, be adopted, and that a fraction be always used, of which the numerator represents the number of milliampères employed, and the denominator the number of square centimetres contained in the electrodes.

Massage in the Treatment of Writer's Cramp, etc.—In the *Journal of Mental and Nervous Diseases*, June, '86, is an exhaustive article by Geo. W. Jacoby, M. D., of New York. He says: "Under the title of writer's cramp we shall consider all affections which have been described by Benedict under the generic name of 'Coordinatory Occupation Neuroses,' without at all confining ourselves to the various forms as they occur in writers. The name writer's cramp has, almost since its existence, for various manifest reasons, been acknowledged as insufficient. The symptoms, for we really have only symptoms to deal with and not a disease itself in the true significance of the term, may occur in any person who is obliged to make continuous or prolonged use of any group of muscles. These symptoms occurring in persons occupied in various pursuits, have received the names of the occupations followed; thus we read of writers', draftsmen's, engravers', violinists' cramp, etc. The movements employed in all these occupations are not produced

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by the contractions of any one muscle, but by the harmonious co-operation of several."

"To-day the bulk of testimony goes to prove that the majority of cases of writer's cramp, if carefully examined, will be found to be of peripheral origin. On the other hand it cannot be denied that many cases are of central origin, and that in many also the so-called writer's cramp is only an early symptom of some central affection of the nervous system, which might have been diagnosticated if sufficient care and attention had been devoted to it."

"The very first question we must propound to ourselves is, therefore, 'Is the case peripheral or central?' If peripheral, what is the direct disorder? This necessity becomes all the more apparent in the treatment by massage, for in order to attain good results, it is necessary to select our cases, as it is evident that a case of central origin will not be benefited by massage any more than by any other mode of treatment; and cases which are of peripheral origin, even if the central nervous system has ultimately become functionally disordered, may, nevertheless, be influenced by attacking the primary locus morbi."

"Particular attention must be paid to the action of each muscle separately, and also to the harmonious action of the various groups. The writer gives numerous directions for carefully examining the muscles separately and their actions in various combinations, so that, before we begin treatment, we shall have determined exactly what we are going to treat." The importance of examining carefully for these and similar manifestations of peripheral mischief in the muscles, and the frequency of occurrence of such disorders in the various artisan's neuroses, may be appreciated when the following statement of Poore is considered: 'In every case of impaired writing power which I have seen, there has been evidence, more or less marked, of derangement of one or more of the muscles used in writing. The writer's cramp of text-books, in which failure of writing is the sole symptom, I have never seen. We can fully corroborate both these statements; all cases, whether of writers' cramp or of other artisan's cramp, which we have seen, have, upon careful examination, presented evidence of peripheral disturbance sufficient to account for failure in their work."

"Since massage has been used systematically in the treatment of this affection, the cures attained have far outweighed the failures. It is only since Schott's publication in 1882 that particular atten-

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tion has been devoted to this mode of treatment. Schott's treatment consists in a combination of gymnastics and massage. The gymnastics consist of movements performed by the patient alone, and movements performed with the opposition of the operator."

"The massage itself consists of two parts, nerve and muscle massage."

The article contains many rules and practical directions for the employment of these processes, also descriptions of some simple apparatus, of all which one should have a knowledge in preparing to treat cases of this kind; for the success that Dr. Jacoby and others have had by their use amply attest their value.

Insanity in the Negro Race in the United States.—The following are quotations from a recent paper by J. M. Buchanan, M. D., assistant physician to The East Mississippi Insane Asylum, Meridian, Miss.: "In studying the causes and types of insanity among the negroes many striking peculiarities are met with, but I fail to find a single case exhibiting any of the marked characteristics of hereditary insanity; there may be some such cases, but the histories accompanying are so meagre and unsatisfactory as to incline me to the belief that hereditary taint plays no part in the cause of the disease."

"The Federal census reports a total of 638 insane negroes in 1850, and in 1860 the number had increased to 766, or say, one insane negro for every 5,799. Returns for 1870 show one to 2,695, and in 1880 we find one for every 1,096. If the same ratio is kept up, by 1890 we may expect to find the whites and colored with about the same ratio, which is one for each 500."

In speaking of the causes of this rapid rate of increase, he says:

"The negro is naturally intemperate, and, unrestrained, indulges every appetite too freely, whether for food, drink, tobacco or sensual pleasures.

"It is remarkable, though, that while negroes are given to all forms of intemperance, but few use opium. I have never seen an opium eater among them.

"There has been a complete revolution in his mode of life and habits. A larger proportion are subjected to the greater hardships of life, often in need of the necessities of life. * * * From a quiet, peaceable being he soon became a religious fanatic or a turbulent politician, often both combined.

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"The insane negro is combative and homicidal, but suicidal tendencies rarely exist. Dementia and melancholia are common, but the most frequent forms met with can best be described as moral or emotional, fraught with hallucinations and delusions."

Absence of the Knee Phenomenon in Health.—At a meeting of the Société de Biologie, April 10, '86, Déjérine reported the case of a tuberculous patient who during life presented absence of the patellar tendon reflex. He never presented any other symptom of locomotor ataxia, no lightning pains, no ocular symptoms, no incoordination, etc. At the autopsy the spinal cord, which was examined with the greatest care, as also the peripheral nerves, were found to be absolutely normal. This case proves that the patellar reflex may be absent, without any other symptoms or any characteristic lesion of locomotor ataxia being present.

There have recently appeared reports of extensive examinations of large numbers of individuals with regard to determining the question of the absence of the patellar tendon reflex, or the knee phenomenon, in healthy persons. The uniform results of these examinations have been to find the number of such persons very small indeed. So few are they in whom it does not appear, when the examinations are properly conducted, that some observers seem almost to doubt that it may be absent in health, or when, at least, no lesion of the peripheral nerves or cord, or in other words, of the "reflex loop," exists. In view of these facts the value of the case reported by D. is apparent.

Raynaud's Disease.—A year ago the writer reported two cases of Raynaud's Disease (*Courier*, Sept. '85), and remarked at the time that cases of the kind were rare. Now, a month does not pass without reports of cases in some of the medical journals, and he has changed his opinion. The fact is that, instead of the disease being so rare, it had not a year ago a generally recognized clinical identity. It was little heard of in this country; many cases, undoubtedly, being seen, but not reported, because of the hesitancy and difficulty every sensible general practitioner experiences in attempting to describe a supposed nondescript malady. In the *New York Medical Record*, July 18, 1885, there appeared from the pen of Prof. C. L. Dana, a very satisfactory article, full of bibliographical references. This article has, no doubt, been of very much ser-

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vice in directing attention to this disease, that is now so much more generally known than it was a year ago.

SURGERY.

Reported by A. V. L. Brokaw, M. D.

Reduction of a Dislocation of the Humerus of Long Standing by Open Incision.—Geo. R. Fowler, M. D., reports that three years ago Minnie Post, æt. 38, seamstress, while attempting to save herself from falling down stairs, suffered a dislocation of the right humerus at the shoulder joint. It was reduced at once. Two weeks afterwards the dislocation recurred, the patient being unable to account for the accident in this instance. This dislocation was reduced after a month had elapsed. Six weeks later another apparently spontaneous dislocation occurred; upon this latter occasion reduction was at once accomplished. Following this, recurrence of dislocation took place repeatedly, the bone never remained in position for over two weeks without apparently becoming spontaneously displaced. For past six months the head of humerus has rested below coracoid process. She suffered constant pain; function of arm greatly impaired. April 1, '86, following operation performed for reduction: An incision was made at a point just within the tip of acromion process of scapula and curving downward, inward and then upward, so as to terminate at a point about two fingers breadth to the inner side of the coracoid process. The prominence formed by the displaced head of the humerus lay in about the centre of the space marked out by the U shaped incision." The flap consisting of integument, fascia and fat was turned upwards, the fibres of deltoid separated by handle of scalpel, the tendinous margin of pectoralis retracted, capsular ligament exposed, fibrous bands about head of humerus, adhesions of capsular ligament to coraco-humeral ligament, together with coraco-humeral ligament, divided with scissors. The head of bone replaced by manipulation, folds of capsular ligament, attached by catgut sutures to the sheath of deltoid, with view of re-enforcing the attenuated part of capsular ligament and approximating the parts. Tube introduced, deep and superficial catgut sutures were used; frequent irrigation during the operation with 1-3000 hydro-naphthol sol.; before closing sterilization was accomplished by means of a

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1-12,000 potassio-mercuric-iodide sol. Oil silk dressing, arm and forearm secured to the chest. Patient made a good recovery; remained in hospital 23 days. Six weeks after operation pain relieved, arm in fair way to recovery, though some stiffness about joint remained. —*N. Y. Med. Jour.*

A Case of Imperforate Anus.—Sir Wm. MacCormac was called March 21, 1886, to see a child born two days previously. The anus was well formed but terminated in a pouch about half an inch beneath the surface.

The proximity of bowel could not be made out, and to avoid what might be a hopeless search, it was thought best to perform left lumbar colotomy. This was accomplished without any difficulty. Meconium escaped, and the pre-existing abdominal distention subsided. April 12, a probe was passed through opening in the groin towards anus, and it was found a thin septum existed between rectum and anus. This was divided, a drainage tube passed from the opening in the groin through the lower bowel, for the purpose of washing it out. Child did very well for some days. The symptoms of acute peritonitis set in; child died April 17.

Autopsy: Lymph and fluid in abdomen; sigmoid flexure firmly attached to abdominal walls; rectum full of semi-solid fecal matter. This accounted for absence of impulse in anus. The rectum was found complete, with exception of septum. A small perforation was found midway between opening in groin and anus. A small scybalous mass of feces resting against the point of perforation caused the ulceration and subsequent peritonitis. (Sir Wm. MacCormac advocates Littre's operation, if difficulty is experienced in locating the exact position and distance of the bowel.)—*Lancet*, Aug. '86.

Traumatic Tetanus Treated with Chloral Hydrate in Conjunction with Urethan; Recovery.—Wm. Jackman, M. C. R. S., etc., says that J. C., a lad, æt. 15, having had a finger crushed by a cog-wheel, five weeks after injury developed symptoms of tetanus. Trismus and opisthotonos were well marked; pain severe, exaggerated at night. Chloral hydrate in. 20 grain doses ordered every three hours; this relieved the pain slightly during the day, but the lock-jaw, opisthotonos and rigidity of muscles of legs remained the same; pain continued severe at night; chloral treatment kept up for ten days. Decided to discontinue chloral at night and gave four

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grains urethan every two hours, from 6 P. M. to 6 A. M. Improvement after first night of treatment. Patient made a gradual, uninterrupted progress. Recovery established April 30, '86. Time under treatment thirty days. Writer thinks that urethan will prove to be a valuable drug in the treatment of tetanus, used either alone or with chloral hydrate.—*Lancet*, Aug. 1886.

SURGERY.

Reported by J. C. Lemen, M. D.

Extirpation of Inguinal Glands because of enlargement due to venereal disease has been considered a somewhat dangerous operation, owing to the fact that we may have sloughing of scrotum.

Dr. Armstrong reports three cases in which the results were all that could be desired. In these operations the greatest care should be taken to keep parts clean and prevent pus burrowing.—*Med. News*, June 19.

Perforating Wound of Abdomen.—Dr. H. W. Boone reports a case in which the intestine was wounded in two places. The wounds in intestines were sewed up and a portion of gut three and a half inches long was excised, and the ends attached to the wound in the abdomen by deep sutures passing through the serous and muscular coat of intestines. The wound was dressed with carbolic solution. The patient recovered without any great trouble.—*Med News.*

Intussusception in Children.—Dr. W. E. Foster gives us a very interesting paper on intussusception in children, the diagnosis and treatment of the same. He mentions that in making a diagnosis we are to look to the character of the evacuations which resemble dysenteric discharges, but contain more blood and less mucus than these discharges. We may expect to find a tumor which can be felt by palpation over the abdomen, and the pain will be great and resemble somewhat the pain of colic, also in those cases that have come under his observation the sphincter ani has been very much relaxed. Then the constitutional reaction, the throes and straining without passing feces but with passage of blood are the characteristic symptoms. He recommends a very practical instrument for giving in-

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jections of air and water in a carbonic siphon attached to a syringe tube, and by pressing the cock the injection and amount can be regulated at will. He can not agree with some authors in believing that we should trust to nature to cure these cases as the per cent of natural cures is quite small, and even if the portion that has been occluded sloughs, the patient will probably die of exhaustion if left to nature.—*Am. Jour. of Obstet.*, July, 1886.

Excision of Shoulder Joint.—Dr. Hubbard thinks that excision performed early in chronic disease of the shoulder joint gives the patient a much better arm than long continued conservative treatment. It also gives him a much better chance of entire recovery in a much shorter time. The excision should be performed under strictly aseptic methods. He claims that by allowing the long continued suppuration we not only run a risk of liver and kidney trouble, but that the tubercular bacilli are likely to be transplanted to other regions of the body.—*N. Y. Med. Jour.*

Esophagotomy.—Dr. Markoe reports two cases of esophogotomy for removal of foreign bodies. This is now a recognized operation in surgery and one in which Dr. Markoe thinks the chances of saving the patient are much better if operation is performed immediately after the foreign body passes into the esophagus. He also recommends that rectal alimentation be not relied upon, but that a tube be passed through the wound and patient fed in that way. He thinks that his success would have been better in some of his cases if he had followed this plan in all.—*Med. News.*

OBSTETRICS AND GYNECOLOGY.

Reported by H. S. Brookes, M. D.

An Unsuccessful Case of Alexander's Operation.—In a paper read before the Edinburgh Obstetrical Society, Dr. Skene Keith described the operation, result, and final treatment. Patient gave a history of pelvic disorder of six years standing and its associate suffering. Examination revealed a typical retroversion with an enlarged uterus. Pessaries gave relief, impregnation following. Three months after uterus was found in former malposition, patient suffering as before, uterus greatly enlarged, fundus lying on pelvic

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floor. Vagina was then packed with oakum, replacing uterus, relief following. Alexander's operation (shortening round ligaments) seemed admissible and was performed, except that the slack of the ligaments was cut off and not packed in the wound. Recumbent posture maintained for five weeks. Sound when passed indicated a slightly exaggerated curve forward. Patient felt quite well. Twelve weeks later uterus resumed its former position. Finally the ovaries were removed. the connection of the right one being fixed at the bottom of the wound in a clamp. One year later the patient expressed herself as feeling quite well. An interesting experiment would have been to have allowed the uterus to drop back into the pelvis, but the risk of a second failure would have been too great. The great objection to Alexander's operation seems to be the stretching of the ligaments following the operation, although the uterus was greatly reduced in weight, and nine weeks after first operation sound indicated depth of two and one-half inches.—*Edin. Med. Jour.*, July, 1886.

Dyspareunia.—In a paper read before the Washington Gynecological Society, Dr. Geo. Byrd Harrison cited his experience in the treatment of dyspareunia in which he administered reproof for the false modesty which prevents the practitioner from asking necessary and proper questions relative to coition. A removal of the evil results of which may promote conjugal felicity, while a disregard we know to have been a fruitful source of much unhappiness and frequent divorce.

Case I. History, four abortions, dysuria acute, intercourse suspended owing to acute suffering attending the act. Examination revealed an indurated periurethral tumor, constricting and distorting the urethra, making difficult the introduction of a very small flexible catheter. The ostium vaginæ was so occluded as to barely admit introduction of index finger. The parts were acutely sensitive and painful. Cystitis chronic. By using cocaine, bladder was irrigated without much pain. Owing to patient's vocation (washerwoman) palliative treatment only could be employed. However, the application of cocaine sol. before intercourse gave much relief. When last examined the tumor had somewhat diminished in size.

Case II.—Undue length of male organ. Patient complained of acute pain during sexual intercourse, such as to almost inhibit this. Further inquiry revealed an extraordinary length of the intromit-

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ting member. The idea was conceived of "taking a reef" in said member. This was accomplished by making a thick cotton or padded ring, and using as a washer, similar in shape to the common inflated ring pessary. The effect was magical and harmony restored.

Case III.—Congenital deformity. History.—Age 19; vicarious menstruation, irregular, and *per nasam*.

Patient anesthetized. Examination revealed transverse membranous septum posterior to hymen, completely obstructing the vaginal canal. Breasts normal, also clitoris and labia.

Membranous septum incised, found to be the anterior wall of a sac filled with a glairy fluid, resembling ovarian fluid containing cholesterine. No trace of a uterus to be found. (Presence and size of ovaries not stated positively. Query: Is not Battey's operation indicated?

Case IV.—Malposition of os pubis, the os pubis being depressed so low as to interfere with penetration *a fronte*. The only case in writer's experience did not seek consultation for this deformity. The deformity, however, being recognized, the question of relief suggested itself. In these cases it is advised that all amatory approaches be made *a tergo*, which method has always been successful. When dyspareunia is due to simple hyperesthesia and reflex spasm, the oleate of cocaine, ten per cent, has proved of great benefit; it should be applied about fifteen minutes before intercourse. An unyielding hymen requires a crucial incision in which cocaine is an excellent local anesthetic.

Pills for Amenorrhea.—Dr. N. Gueneau de Mussy recommends the following formula:

℞ Salicin, - - - - 1 (grs. xv)
Pulv. rhei, - - - 0.50 (grs. viiss)
Confect. rosæ, - - q s.
M. Ft. pill no. x. Sig. One to three daily.
—*Les Nouv. Reméd.*, 15 Aout, '86.

The Diet Tables published by Reed and Carnrick, of New York, are an exceedingly convenient aid to the physician in giving directions for the diet of patients suffering from various diseases.

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SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting August 22, 1886. Dr. McPheeters President, in the chair.

Death of Dr. Wm. L. Barret.

Dr. McPheeters. — You are all aware of the sad and unlooked for event which calls us together at this time. Death has entered our limited circle, and taken one of our ablest and most active members. When the old die, we are not surprised, because it is in accordance with the established laws of nature. Not so however, when the young or middle-aged are suddenly and unexpectedly removed, for then there is a seeming violence done to those same laws, and we feel disappointed, as though the column were broken off in the very process of its erection.

Dr. Barret has been called away in the strength and vigor of early manhood, when he was just beginning fully to realize the rich reward of industry and toil, in the attainment of well deserved professional success. Why it is that a period should suddenly be put to a life of prosperity and usefulness such as his, is one of the mysteries of Providence which we cannot fathom. All that we know is that God's ways are indubitable as they are inscrutable, and all that we can do is to bow with submission to the will of Him who is too wise to err, and too good to do wrong. At the same time it is meet that as a society we should pause, and weave a suitable garland to be placed on the bier of our deceased brother.

Dr. Boisliniere, one of the oldest, most honored and beloved members, desires me to state that while the state of his health will not permit him to be present with us on this occasion, he most deeply sympathizes with the object of the meeting and in the desire to do honor to the dead.

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On motion of Dr. Papin, a Committee consisting of Drs. Ford, S. G. Moses and W. Coles, was appointed to prepare suitable resolutions, and reported as follows:

"When, in the fulness of years, in the fruition of the results of a long life of earnest and noble endeavor, of worthy ambition crowned by honors, of benevolence secured to humanity, and of affection paid back by descendants with interest compounded through a lifetime of tender solicitude, the bonds are gently loosened, and the ties dissolved which link the immortal spirit of man to his elemental clay, we recognize but a special ruling of the great law of existence which decrees that life shall spring out of death and death out of life.

"Regret may fill our hearts that one so worthy of life is compelled by the very condition of life to cease to exist in the form we see and know, even while ripest experience may guide his thoughts, and tried and ready judgment be dispensed from his aged lips.

It is sad to know that most of the excellence attained by age must perish with the individual, that we can not expect to hear for any lengthy period the precious dicta of mature wisdom, nor those sharply defined inculcations of morality that are founded not on mere time-honored precept, but upon life long trials and self-battlings, and are thus based upon reason as well as upon instinctive virtue. All such worth we know must pass away; the finest of human fabrics, and man himself are in the dust, and of it, and nature will assert her laws.

But our regret is mingled with bitter disappointment when the fateful blow is struck upon the portal of vigorous manhood. We feel that we have lost things of great value, things very difficult to restore, when one who is fully equipped for his life struggle and is bravely defending the right, who is moreover day by day fulfilling the expectations of those who know him best, and whose record of usefulness is lengthening year by year, is suddenly stricken by the hand of death.

Sorrow and painful surprise then conspire to astonish and overwhelm us when we behold the strength of intellect and of manly character fail in a day, the pulses of a generous heart prematurely stifled, and the clear eye suddenly overshadowed by falling of that night in which no man can work.

Especially are our deepest sympathies touched, when a brave, truthful and promising career is arrested under the dark shadows

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of affliction, in the gloom of irretrievable loss and the anguish of bereavement. Nothing can be more painful than to contemplate a noble frame overburdened by disease, whose forces barely able to weight the bearer in favor of health are hopelessly sapped by grief; to see at once the nerves racked by suffering, and the bosom remorselessly torn by unspoken woe, to know that the strength which nature has generously given, must be dissipated and irretrievably wasted by the prolonged shock of a stricken heart.

The recent death of our fellow, Dr. W. L. Barret, under circumstances like these, fills us with poignant grief. A cruel fate has dealt most cruel blows to him, to his family, and to ourselves.

We are here to express in some inadequate words our high esteem for our deceased fellow-member, to bear a feeble tribute to the generosity of his nature, to the truthfulness and courage of his character and to the warmth and steadfastness of his affection; to declare our high appreciation of his distinguished talents, to lament his untimely fate, and to condole with one another over our collective and individual loss.

Be it therefore resolved:

1. That in the untimely death of Dr. W. L. Barret, one of the founders of the Obstetrical and Gynecological Society of St. Louis, the Society has lost one of its most valued members, whose professional ability, sound judgment and scientific activity, have very greatly contributed towards its growth and usefulness.

2. That by the dispensation of an inscrutable Providence, the Medical Profession has lost one of its most useful members, and the community one of its purest and wisest counsellors, and most skilful and tender ministers to the woes attendant upon disease.

3. That the society and its members individually do most sincerely lament the loss of their late fellow, Dr. W. L. Barret, and condole with his many friends over their common bereavement, but especially with his most afflicted family, within so brief a time, and under such painful circumstances, called upon to mourn the loss of a father and an only son.

4. That this tribute to the memory of Dr. W. L. Barret be transcribed into the Register of the Society, and that a copy of the same be transmitted to the family of the deceased.

W. Hutson Ford,
S. Gratz Moses,
Walter Coles, Committee.

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On motion of Dr. Gregory the preamble and resolutions were adopted.

Dr. Gregory:—I heartily endorse those resolutions and preamble; it seems to me the remarks by the president and preamble and resolution by the committee are each admirable in their way. As a colleague of Dr. Barret, I am impressed with the fact that we have sustained a great loss; there is no doubt of Dr. Barret's being a most important factor of the medical profession in St. Louis and in the Valley of the Mississippi, for really his reputation was not limited to the city of St. Louis, but it certainly reached the limit of the Valley of the Mississippi. I do not think that the profession has had in its ranks a more faithful, a more courageous, a more promising member since my knowledge of the history of the profession began. It seems to me that Dr. Barret had not only reached a degree of eminence that was enviable in all respects, but had a promise for the future that was most extraordinary, so that I heartily join with the committee and the president in every word that has been so ably expressed in the preamble and resolutions.

Dr. Ford:—I would like to bear tribute to Dr. Barret's worth. I have known Dr. Barret ever since I first came to St. Louis. I formed a very high estimate of his character from the very first time I knew him. Accidentally we lived next door to each other and I saw a good deal of him, and the impressions he made upon me then have always remained. I always regarded him as having great professional courage and honesty, and a determination to do what he thought right in the best way. At the same time I came to know that he showed the same courage in theory that he showed in practice. He was not afraid to think for himself, and was fully able to carry out his ideas in practice, so that he came year by year to be a more careful thinker, and I believe a more guarded and skilful practitioner. I think the society has lost one of its most valuable members. I think Dr. Barret's reputation was properly growing, and I was delighted to see it grow. I think his theories were well founded, well taken, and his practice bold, bold enough and at the same time conservative, which are two things which it is very difficult to unite in the same person. In regard to personal qualities, he was warmly attached to his friends, and his friendships were lasting and could be counted upon. I think Dr. Barret's personal friends and the society and the profession have lost a man that they could not afford to lose, that in his

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death we have all lost one whom it will be very difficult to replace in time even.

Dr. Coles.—I don't know that I can add anything to what has already been said in regard to Dr. Barret. As a physician he was a man of sound judgment and scientific attainments. I think Dr. Barret had already established a reputation so firmly that nothing we could say could add anything to it. As a man and as a friend Dr. Barret was possessed of a peculiar character, one that had to be known well to be appreciated. The doctor was a man of strong convictions, and, as has already been remarked, he had courage to defend his opinions. He was a man of great tenacity of purpose. He always tried by every fair means to carry out what he conceived to be the dictates of his own judgment. I think he was disposed to pursue that course without fear or favor of any one. Perhaps many of those who were not intimately acquainted with Dr. Barret may have thought that sometimes he was a little austere in his manner, a little abrupt; but I have known Dr. Barret sufficiently intimately to feel thoroughly convinced that he was incapable of doing anything that he considered in the slightest degree dishonorable; he was a man who had firm friends; when he liked a man, he liked him with all his might; and when he made up his mind, after mature deliberation, that he was in the wrong about a person, he had the courage to announce it, and in that way he convinced me—and I have been struck on more than one occasion with his manliness. He was a man of a great many sterling qualities; one that I think we cannot supply in our profession. I believe that our society will miss him not only as a social member but for his worth as a physician and gynecologist.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, Aug 26, 1886. Dr. Hermann in the Chair.

Spinal Congestion—Pregnancy—Ergot.

Dr. Fry reported a case of spinal congestion with complete paralysis of sensation and motion to the waist, and the lady is three months pregnant. That had prevented him from using ergot,

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which is a remedy on which we rely a great deal in this condition. He asked if, under the circumstances, the gentlemen present would give ergot in large doses. The congestion was acute and quite rapid; it came on without any premonitory signs, and progressed quite rapidly, so that from her feet being affected, when he first saw her ten days ago, it had reached to the waist in less than three days. He gave her no ergot at all, but leeched the spine and applied counter-irritation. There was no sensation at all in the affected parts. There was no distinct tenderness of the spine, but there were some points where heavy percussion of the spine caused pain.

Dr. Hermann said he would hesitate in such a case to give ergot in large doses. He would prefer to use other remedies. He would think that the affection itself would bring with it danger of abortion, if the congestion of the spine was very severe, without any ergot.

Dr. Fry stated that she had had symptoms of miscarriage, hard and regular pains, so that he thought the os would dilate; she had a good deal of bearing down sensation and flooded some; this evening she had some pain again. Enemata of opium and chloral had arrested them before. She had previously miscarried several times, and when carrying her last child she came very near miscarrying; during the last two months of her pregnancy she lay in bed most of the time, threatened with miscarriage and had frequent flooding.

Dr. Leete asked Dr. Fry if he had reached any conclusion as to the cause of this spinal congestion.

Dr. Fry said he had not. It is now going away quite regularly leaving no bad effects. If it were not for this uterine complication she would now be able to stand on her feet; she moves her legs in bed.

Dr. Love related a case which had been under his observation during the past year, in which the patient was recently confined. During the first three months of her pregnancy the lady suffered with intense nervous symptoms, which suggested spinal irritation. A neurologist, consulted by his advice, diagnosticated spinal irritation, and treated her for it with internal medicines, electricity, etc., but without any benefit.

Week after week passed, and instead of benefit there was the reverse. After three months of this, Dr. Love was again consulted,

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and he was convinced that the lady was pregnant, she, however, not having suspected it. There had been a history in her case from time to time of suppressed menstruation for months at a time, and there was once a period of two years in which she did not menstruate at all, therefore, the absence of menstruation did not arouse her suspicions, but an examination showed that she was pregnant. During her first pregnancy (this being the third), she came very near dying with vomiting due to reflex irritation, which after everything else had failed, was relieved by an application of caustic to the mouth of the womb; and it suggested itself to his mind that possibly these nervous symptoms were due to spinal irritation — were entirely reflex. He made an application. About this time quickening occurred, and she then was convinced as to her condition, and was greatly relieved in her mind; whether the time had elapsed for the reflex irritation to subside of itself, as it frequently does after quickening where there is reflex irritation disturbing the stomach, or whether its subsidence was due to the applications, he could not say. At any rate the nervous symptoms gradually improved, and shortly after disappeared, although she was given no medicine. Possibly the severe symptoms which Dr. Fry had mentioned might be referable to similar irritation.

Dr. Leete thought that ergot would be objectionable in such a case if given in large doses, as is the practice when directed against congestion; but he had found that very good results can be had by the use of a good article of fluid extract of ergot for the purpose of mitigating, if not wholly relieving congestion, giving it in much smaller doses than is ordinarily given. When ergot is given to assist labor, all of the conditions being favorable to increasing the expulsive efforts of the uterus, it is given in large doses and at short intervals, and much the same rule, he was inclined to think, has generally been observed, when ergot has been used for the purpose of relieving congestion.

In such cases as Dr. Fry's he would th nk it advisable to avoid ergot altogether, in view of the fact that the lady had suffered miscarriage several times, but if that had not been the fact, and if other remedies had not seemed to have the desired effect, he would think it entirely prudent to give ergot in small doses and at comparatively short intervals, say give five or ten drops once in two hours, and he thought the danger of causing contractions of the

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uterus would be small. But in such a case he would think it vastly better to try the effect of dry or wet cups, if the person was of full habit, applying them abundantly to either side of the spine, following them with such applications as would be calculated to bring the blood to the surface immediately over and about the spine.

Dr. Grindon said that Dr. Fry's query would naturally raise the question how ergot acts and how it produces uterine contractions, or, rather, at what times it acts, because it does not always so act. A dose that at one time would produce uterine contractions, at another would not. The old idea was that the ergot started contractions of the longitudinal fibres of the womb, and in that way the head or the bag of waters was forced down, and then the pressure from behind gradually dilated the cervix. More recently another idea has been been advanced, that there is an active dilatation at the cervix which precedes the contraction further up. Madame LaChapelle, having borne children herself, stated that she felt the pains beginning at the cervix before she felt any elsewhere; hence it would seem that the first stage consists in a beginning relaxation of the fibres of the cervix — that contractions never take place until there is that beginning relaxation. The cervix is supplied by nerves from the cerebro-spinal axis, whereas the body is supplied entirely by the sympathetic; and whether the impulse which starts the labor originates in the cerebro-spinal axis, is not known, but the fact that dilation is the first stage, would seem to suggest something of that kind. Perhaps no relaxation would be appreciable unless looked for at the time; and of course one does not generally examine until contractions have begun. Dr. Schenck used to insist upon this point, and say that he believed that unless relaxation of the cervix had begun, the administration of ergot would have no oxytocic effect, and would not produce contractions; and that ergot given alone where there was no tendency to uterine contraction would not commence it; that in such cases it was necessary to begin with chloral or something which acted by relaxation of the circular fibres of the cervix. In Dr. Fry's case where the patient has already had miscarriages, of course ergot would be a very unsafe thing to give, because relaxation of the circular fibres might already have occurred.

Dr. Leete asked if he understood Dr. Grindon to say that it was Dr. Schenck's notion that the exhibition of ergot would not be fol-

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lowed by contraction of the womb unless the os was considerably dilated ?

Dr. Grindon.—He did not believe that ergot alone would begin the process; but that, if the process of labor had begun, it would cause dilatation.

Dr. Leete said that he could not understand that the exhibition of a good quality of ergot in ordinary full doses should fail to produce contractions of the womb,at full term,if given just before the birth of the child, if we could fix that time. The fact that women who have taken ergot of their own notion to get rid of their offspring at a time when they thought it was perfectly safe to do so, have evidently had contractions of the womb, and very violent contractions brought about by the taking of the ergot, led him to believe that when given in sufficiently large doses it does produce contractions of the uterus. It is well known by intelligent physicians that ergot should not be given except the mouth of the womb is either actually well dilated or very easily dilatable to a wide extent. He related the following case from hospital practice. He was called to the obstetrical ward to attend a patient, who stated that she had been in labor some time with the early pains of labor, and had suffered a good deal, but she had not notified the nurse, because she thought she could stand it a while longer, and the pains had subsided. There was an absolute subsidence of the pains for one or two days, but the os was in an admirable condition for the completion of labor; it was thick and soft, and by putting the thumb and finger in, although it was but little patulous, he could easily dilate the os. He did not hesitate to give ergot in full dram doses, and very likely at intervals of not more than fifteen or twenty minutes; and he got an effect in an hour or two with a rapid termination of labor. The history of the drug shows that loss to farmers sometimes in their flocks of sheep and herds of cattle has been very great by having them get into fields of rye which were rich in ergot; abortion in such cases has been very general through their flocks.

Dr. Grindon asked whether Dr. Leete knew if in those cases all those aborted who were pregnant and ate of the spurred rye, or only some of them. If only some of them aborted, he thought it would go to prove the correctness of the theory he had mentioned.

Dr. Leete could not vouch that all were thus affected. It was certainly true, however, that in some cases a comparatively small

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quantity of ergot will answer the purpose, whereas in others three or four times the quantity would be required. With many of the remedies that we use, there is a variableness of susceptibility. It has been noticed again that ergot of rye affects the pregnant brute as it does the pregnant woman.

Dr. Love does not think there is any one drug that is more thoroughly abused than ergot. He does not believe there is one case of labor in a thousand where ergot is necessary, save and except it be given just at the close of labor, if possible to anticipate the prompt contraction of the uterus after delivery. He believes that more frequently harm is done than good by its early administration. Where the os has been dilated to a considerable degree, where hours and days—two or three days—have elapsed, and labor has not progressed, instead of giving ergot he would give chloral to secure perfect rest and aid in relaxation. And when the tired muscles get ready to contract again, they will do so. He did not believe that in fifteen years he had given a dose of ergot except when the head was pressing upon the perineum, and rarely then, and only because he thought there might be some disposition to a lack of thorough contraction after delivery, with a view to anticipate after-pains. He had seen several cases in the hands of midwives, where he was sure there was complete exhaustion and collapse produced by the early and excessive administration of ergot.

Dr. Fry said that he proposed the question because he thought there was a practical point in connection with it. Some gentlemen claim that ergot will not induce labor; and he believes that in a case of this kind, gentlemen holding such views would be disposed to use ergot, inasmuch as it is a very desirable remedy for spinal congestion. He had known a number of cases where ergot has been used by patients for the purpose of bringing on labor without such effect; and this very patient, according to her statement, once took one or two ounces of the fluid extract of ergot, and it failed to induce a miscarriage. She did not miscarry until she resorted to other measures. Still he did not believe it proper to give ergot, although as already stated, he had seen many instances that had led him to believe that unless there is some predisposing cause ergot will not start labor.

Dr. Leete said that in his observation of patients who had deliberately taken ergot, when they believed themselves to be three or

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four months pregnant, for the purpose of inducing abortion, the action of the medicine had been to induce localized pains resulting in violent contractions of the womb; hence he believed it had a specific effect upon the uterus, whatever effect it had upon the system.

Dr. Fry said it was a practical question, because there are many conditions where it would be desirable to give ergot to pregnant women; for instance, a pregnant woman might have pulmonary hemorrhages, epistaxis or pneumonia, or other conditions in which we have found empirically that ergot is very good. He did not believe that we can determine in what cases we may give it and in what cases we must withhold it, because we can not find out definitely in what instances the woman would be susceptible to its influence. He had known several instances where women from six weeks to two months pregnant had miscarried from taking ergot, and yet he had seen other instances where they took any amount of ergot without effect.

Dr. Leete thought it would be a very great misfortune if the notion should become widespread that ergot was unlikely to produce expulsive efforts of the uterus, that it might be safely given in full doses, say a half dram or a dram, and at comparatively short intervals, irrespective of pregnancy, whether the patient had shown an inability to carry her children in previous pregnancies or no. The mass of evidence showed that a good quality of ergot, given in full doses, at comparatively short intervals, will, in the great majority of cases, produce such expulsive efforts as would result in abortion or in the completion of labor at term. He regarded ergot as a valuable remedy and would often use it in males and non-pregnant females, when he would not use it in pregnant females. He thought there had been a tendency in later years to use ergot in a class of cases where other remedies would act not only as efficiently as ergot, but more promptly; particularly pulmonary hemorrhages. He regarded gallic acid as a most valuable remedy in cases of pulmonary hemorrhage. It is very soluble, is very quickly taken into the blood, is harmless, and can be given in large doses and at frequent intervals, and does its work with astonishing rapidity. He would much sooner in a case of internal hemorrhage give gallic acid than ergot.

Dr. Love remarked that the chairman had suggested that the spinal congestion present in this patient would have a tendency to induce abortion; and raised the question whether in this case it

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would not be better to risk administering small doses of ergot, which might beneficially influence this condition, rather than to risk a continuance of the disease and the attendant chance of an abortion. He had acted upon that same theory with patients suffering from malarial poison. For a number of years he held the opinion that quinine was an oxytocic and should not be given to a pregnant woman, and a number of times patients aborted. Finally he changed his practice, and in a number of cases where the system or the patient was saturated with malarial poison he saturated them with quinine and removed the cause of the trouble. He believes there is greater danger of abortion being produced by malaria than by quinine. Just so it might be better in such a case as that reported, to give small doses of ergot and thus relieve the condition and risk producing an abortion, rather than allow the condition to progress and cause abortion. He fully agreed with Dr. Leete as to gallic acid for the controlling of hemorrhage. In pulmonary hemorrhage he always uses gallic acid in large doses, frequently repeated.

Dr. Fry said that while he had no personal knowledge as to the effect of gallic acid in stopping pulmonary hemorrhage, he had no doubt of its utility in such cases, but he would be disposed to follow it up with doses of ergot, because one thing well established is the physiological effects of ergot upon the capillaries. Where there is considerable congestion about the lungs and the condition predisposes to hemorrhage, he believed this could be relieved by ergot, and he knew no physiological data that would lead to the belief that gallic acid would do so.

Dr. Leete said that one point that had been lost sight of was that in cases of pulmonary hemorrhage there is insufficient nutrition; there is usually impaired appetite, if not almost complete loss of appetite, digestion is greatly weakened, and assimilation is very faulty. Ergot tends to aggravate these troubles by causing nausea, whereas gallic acid does not. It is pleasant to take and is not objected to by children.

July 27, 1886. Dr. Scott in the chair.

Pedunculated Tumor of the Back.

Dr. Funkhouser presented a specimen removed from the back of a patient, about two inches below the inferior end of the left scapula.

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The patient was about 30 years of age, and the tumor had been growing for ten or fifteen years, very rapidly within the past month; the rapid growth being due perhaps to the irritation of a suspender, the patient being quite heated, having had occasion during the strike to go about a great deal more than he had been accustomed to. When removed it was considerably larger than at present, and it bled a good deal before it was removed, so said the patient, which would indicate that clinically speaking it might be a fibro-vascular growth, but even that designation would not be correct, for in a growth of that class upon examination we would be able to find the place from which the blood came, which, in this, the doctor had not been able to do, though he had not cut it in all directions as he desired to harden it for microscopical examination. The pedicle was about the size of a chicken quill, an inch and a quarter or an inch and a half in length.

Dr. E. M. Nelson read a paper (Vid. editorial in August Courier) on

St. Louis Dairies.

Dr. Fry related a case in a family on Franklin Avenue in which a baby about two years old was sick with diarrhea and indigestion. They got their milk from a dairy in the western part of the city. The milk looked very well, richer than many specimens, still the doctor had a suspicion that there might be some connection between the milk supply and the child's complaint. Various substitutes were tried, as well as peptonizing the milk, with but little success. After changing the milk, which they did after some hesitation at the doctor's suggestion, the child improved right along, so that he was convinced that there was connection between the child's trouble and the milk supply.

Dr. Leete said it would be difficult to overestimate the importance not only of a thorough discussion of the milk question as touching the health of a great city, but of strenuous and well directed efforts to regulate wisely the milk supply. Attention has been called from time to time during quite a number of years to this same subject, and some efforts have been made to improve the milk supply, to insure the supplying of good milk to such as have to depend on those who sell milk as a business: but he believed it to be a fact that there has never been any steady and well directed effort looking to the improvement of the milk supply, by the city

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government or the Health Department. Ten or fifteen years ago, when the people became pretty thoroughly aroused to the importance of checking, and if possible, absolutely prohibiting the feeding of swill to dairy cows, the dairymen and the brewers, who feared they would lose the profit derived from selling swill, were so bold as to assert that swill fed milk was as good as any other milk, that no reasonable person would object to it, and that no fact could be pointed out in support of the converse proposition, that is to say, that it was not wholesome food, that it caused disease in the cows, and, as a result, the cows gave impure, unwholesome and disease-breeding milk. After the discussion had gone on for a good while, Dr. Leete had made this suggestion; that an ordinance should be drawn and enacted providing that each and every person who peddled or sold milk in this city drawn from cows that were fed in whole or in part upon what is commonly known as swill, should have a large sign fastened to the wagon from which it was sold, bearing the words "Swill Milk," and so wherever this milk was sold such a sign should be used to warn the public that this was swill milk. This suggestion stopped the discussion so far as the brewers and swill milkmen were concerned. They did not want that sort of advertisement. The fact was that they knew very well that their cattle were not healthy when kept on this sort of feed. Not very much has been said in regard to the importance of a greater degree of cleanliness in the handling of milk, and not very much has been said about the importance of using water of known purity in connection with dairies. He believed, as Dr. Nelson had stated, that public opinion is a very powerful factor in accomplishing reforms, but an opinion that is of any value must be an intelligent opinion, and when the great mass of the people do not fully understand the matter, or are not fully informed in respect of that which everyone ought to know in order to properly appreciate the importance of having a pure milk supply for a city, then we can only hope for a reform by the public being guided by the opinions of those who are entitled to speak. The public in St. Louis is not very largely influenced by the opinions of physicians in respect of needed reforms touching the health of the city. He himself had spent considerable time during several years past in personally inspecting dairies, and had never seen but one in this city that could properly be called a good dairy. That was conducted on a moderate scale, as to the number of ani-

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mals kept, out near the Female Hospital. The owner asked the doctor to come and see his dairy before taking milk from him, and told him what he would find. He went out there when he knew he was not expected, and found things as represented, if not better. The stables were exceptionally clean, with abundance of wholesome spring water, as far as spring water could be wholesome, for the cattle; he had some forty or fifty acres of ground, a part of it being very good pasture; the hay which he used was the best to be had in the market, the bran was perfectly sweet, and the meal was fully up to what he had stated; it was "good enough to make bread for anyone's table," bought in small quantities from the mill once a week. His cattle were fat and sleek; their eyes were bright, and had every appearance of health; and the milk gave every evidence of being very good. That was the only good dairy that he had ever seen within the limits of the city, and some that he had seen were horrible beyond anything that language could describe. One of the most important things in connection with a dairy is absolute cleanliness in the management of the cans or bottles in which the milk is brought to market. The evidences have been accumulating during many years, not only in this country, but particularly in England, that it is very easy to propagate scarlet fever and typhoid fever by means of milk, and this through the agency of the water that is used in conducting the dairy. Twenty years ago it would have been very difficult to get people to believe this statement, but we can believe it now. Records would show on close investigation cases where very little, perhaps no water had been added to the milk, but the water that had been used in washing the cans and bottles and pans in which to receive the milk, was drawn from a well or cistern in close proximity to a privy-vault or cess-pool which had received excretions from persons sick with scarlet fever or typhoid fever, and wide spread epidemics of these diseases were traced directly to this source. In connection with this milk question he remarked that an attempt was made some months ago in this city to teach the citizens the danger of using impure water, such as is commonly found in wells and cisterns in crowded portions of the city. Some wholesome legislation was attempted, but it miscarried. And as the matter turned out, it amounted to a declaration that it was an error of judgment to declare that well water or cistern water was unwholesome as found in crowded portions of the city and in close

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proximity to privy vaults and cess-pools and other sources of contamination. That is the lesson that is continually drawn from the miscarriage of this well intended legislation in this city some months ago by a majority of the people. If we had succeeded in closing up all the wells in this city, and all cisterns from which the water was taken to be used in the preparation of food or for drinking purposes, the whole people would have been convinced that these sources of impure water supply were closed really in their interest, and we would have been fortified in insisting that those who supply milk for the consumption of children and adults in this city should use pure water and none other in the cleansing of the vessels that receive the milk; but as it is they may use such water as they please. He thought it only a matter of time when the question of what kind of milk we are to have sold in this city will be taken up, fully considered and properly legislated upon, and he would be glad to see that time come very soon; but he was perfectly certain that if the complexion of the municipal assembly should remain what it has been for the last eight years, any wholesome legislation in relation to the milk supply of the city will only be had under the most severe pressure brought to bear by physicians and others interested in the cause of common humanity.

It requires a great deal of time and effort on the part of a considerable number of people to get the municipal assembly to do the right thing because it is right. One of the most amusing fruits of this miscarriage of legislation, regarding the wells and cisterns, if it was not disgusting, was an item in the papers, which purports to be an extract from the proceedings of the National Board of Health, and refers to the fact that the people of St. Louis depend upon wells for their water, many of which are known to be unwholesome. The casual, careless reader would suppose that we had no supply of river water here. This was seen in connection with an advertisement of Appollinaris water both in the *Republican* and *Globe-Democrat.*

Dr. Nelson said that no one could deprecate more heartily than he the fact to which Dr. Leete had referred, of the spasmodic character of the efforts which have been made during a number of years past in regard to the regulation of the milk supply of this city. It is only too true that no well sustained and continuous effort has been made to control and regulate the character of the

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milk supply; and the responsibility of this lies, not where at first thought it might be placed, if the person thinking did not take pains to investigate and find out where the responsibility should rest. It does not rest with the Board of Health. It is utterly impossible for the Board of Health, constituted as ours is, consisting of two medical men, the president of the City Council, a Police Commissioner and the Mayor, without any fund placed in their hands for general purposes, to undertake or to carry out any such system, as should be done in a city like this, with regard to the milk supply. The only way in which the meagre report that he had just presented had been obtained was by detailing one of the small number of sanitary officers for which provision was made by the Municipal Assembly, and the appropriation is only sufficient to last until the first of September, to do this special work. There was no fund from which to pay for an analysis of milk. If the Board of Health should order an analysis to be made of milk, the bill for it would be rejected by the Comptroller and Auditor on the ground that no appropriation had been made for the payment of such accounts. A small appropriation having been made for the payment of a small force of sanitary inspectors during the summer months, it was deemed advisable to assign one of these men to the special duty of looking up the dairies and finding out their condition, and seeing that any unsanitary defects were remedied as far as possible. He did not believe that there is now in the city a dairy in which the cows are fed exclusively on swill, as was the case some years ago, at the time Dr. Leete referred to in his remarks. As Dr. Leete had remarked, the people of St. Louis are not impressed as they should be with the advantages that the physician possesses for informing himself upon such matters, and do not give due consideration to the advice of the physician in regard to matters of sanitary reform and hygiene; nevertheless if the physicians of St. Louis will take pains to persistently and steadily work on those points, and to drive a nail wherever there is a chance, and to take a little time and trouble, as Dr. Leete did, to inspect dairies and recommend the milk from dairies that they know are well conducted, it will be a comparatively short time before the good effects of their efforts will be apparent.

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Stated Meeting, August 10.

Muscular Atrophy — Sciatica.

Dr. Fry presented a case of rapid muscular atrophy, following sciatica.

Dr. Bremer regarded this as a typical (clinical) picture of idiopathic sciatica, what may be called rheumatic sciatica, dependent, that is to say, on changes of temperature. The initial symptom was lumbago, then pain over the trochanter and sacrum at the usual spots. The onset was seemingly sudden, but there was really a preparatory stage followed by a brusque increase—pain unusually severe, as here, points to an organic change in the nerve itself. There must have been an inflamation of some kind in the nerve itself or in the anterior horn as evidenced by the symptoms. There was rapid atrophy and absence of Westphall's symptom. This is the condition whenever there is inflammation of the anterior horn. Here are situated the trophic centres of the nerves which they supply. The nerves are nothing else but prolongations of the multipolar cells of the anterior cornua. These symptoms follow whenever there is solution of physiological continuity either in the afferent, or efferent nerves, or at the centre. In this case he believed there was a neuritis on account of the clinical picture. There was more than functional disease, there was organic. The former can produce atrophy only after months of inactivity. He thought that if the doctor would test the lower extremity with electricity he would find both faradic and galvanic excitability of the sciatic nerve. He has found it in the muscle, but a weak voltaic current will show the reactions of degeneration, also qualitative changes. He believed this case would improve, but it will take months.

Dr. Leete spoke of the treatment of sciatica, with croton oil.

Dr. Bremer said that oleum tiglii is probably only of use when the sciatica is due to constipation as is sometimes the case, due to feces pressing on nerves in the pelvis. To these cases, oleum tiglii and turpentine owe their reputation. Perhaps turpentine is a nervine. The remedy par excellence is the constant current, in idiopathic sciatica, not in these cases. One possible cause is syphilis, which might cause just such symptoms from an isolated syphiloma. There is here no specific history. One thing that speaks against it is the excessive pain. If there were syphilis there would be no pain unless the syphiloma also pressed against the posterior zone. Then there would be complete anesthesia.

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Dr. Fry.—One year ago I attended a lady who had four severe paroxysms in four days. These were relieved altogether by deep injections of ether and chloroform and the constant current. In not quite two weeks there was extreme atrophy which was removed in a very short time.

In this case I am disposed to think with Dr. Bremer, yet we know that atrophy of limbs is common with sciatica. Erb thinks it due to sensory disturbances which interfere with the functions of the trophic nerves, and therefore thinks it peripheral. Here the atrophy is widely distributed.

Oleum Tiglii is mentioned, by authors, among other cathartics. These may be of use even when there is no special indication that way. This patient was seized on Saturday with a pain in the trochanter which lasted, say from 9 P. M. to 2:30 A. M. He has had occasional slight pain since. For some time prior to the attack he had also had slight pain which was relieved by the application of a fly blister. He was up and about and had been working hard. He now finds going up and down stairs easier than walking along level ground. This rapid atrophy followed the last attack; we know it was not due to inactivity, but to a trophic change.

Within the last year I have seen another such case, in which the affected thigh measured, at one point, two inches less in circumference than its fellow, at a point lower down one and a half inches less, and the leg one and a half inches less. Atrophy of gluteals can be seen. It is now two weeks since the patient now presented had his attack. There is an anesthetic area on the inner and anterior aspect of the left leg. Tactile perceptions are confused at three and a half inches on right thigh and four inches on left. The patellar tendon reflex is absent on the left. That leg was good as the other before. There was pain in the back for two weeks before the attack.

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ST. LOUIS MEDICAL SOCIETY.

Stated Meeting June 5, 1886, Dr. Gregory in the chair.

Pyo-Pericarditis—Pneumonia.

Dr. Dean renewed the discussion commenced at a former meeting, concerning a case of pyo-pericarditis, complicated with facial erysipelas. He defended the theory of Dr. Bremer that the facial erysipelas had been an accident caused by the purulent cardiac affection. Klebs, Koester and Heiberg had found the micrococcus endocardicus of malignant endocarditis in other portions of the body besides the heart after deaths from this affection. It was a plausible theory that the same microbe found in the case of pyo-pericarditis had by way of the lymphatics produced facial erysipelas. The microbes of erysipelas are found in nests in the lymphatics around the border of the erysipelatous zone. This might have been one of many kinds of erysipelas, which we may in time learn to distinguish clinically, just as we do now between croupous and metastatic pneumonia.

Dr. Bremer stated it to be a settled fact that the same germ may produce different lesions, or that the very same lesion may be produced by different germs. In primary croupous pneumonia the pneumococcus is found, whereas in the croupous pneumonia supervening in typhoid fever, is found the germ of typhoid, not the pneumo-coccus, or, as illustrating the proposition that different lesions may be produced by the same germ, take laryngeal and pharyngeal diphtheria. In the former the exudate is upon the mucous membrane, in the latter it soon becomes part of the membrane submucous.

Dr. Bremer's microscopic investigations in Dr. Hulbert's case of pyo-pericarditis complicated with facial erysipelas, had demonstrated to him the same micro-organic lesions in both affections. It was now a common belief that no such thing as an erysipelas *de novo* existed. In the so-called idiopathic erysipelas the microscope demonstrated quite a clear distinction in appearance from that which had, in the case, at issue been demonstrated. Dr. Bremer, strengthened by his microscopical provings, therefore reiterated his belief that the facial erysipelas in Dr. Hulbert's case of pyo-pericarditis, was a pathological sequel.

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In answer to a question by Dr. A. Green, Dr. Bremer stated that he made a distinction between croup commencing in the larynx, and croup which was an extension of true diphtheria of the pharynx to the larynx. We did not yet know the cause of the former.

Dr. Gregory sought an explanation of the fact that certain individuals possessed an invincible resistance to the germs of certain diseases, as cholera and small pox, to which other individuals at once succumbed.

Dr. Dean said that we only know from experience the fact that each cause of disease seems to elect not only in the animal, but also in the vegetable kingdom, particular kinds or species to attack. Individuals exhibited susceptibility, and each tissue had its preference. Certain diseases attack the connective tissue system, others the epithelial system.

Dr. Hughes remarked that the bacillus doctrine is the fashion today. Germs had always existed and did not constitute disease, but the susceptibility to their hurtful invasion was the real disease, the latent cause, whilst the bacilli were but the active cause. All individuals are subject, for instance, to cholera. Many are not attacked, whilst many succumb. The absolutely healthy organism does not yield, whilst the unhealthy organism does yield to the cholera bacillus. That which renders the individual susceptible is the disease, not the bacillus which finds harbor within the individual. This susceptibility, Dr. Hughes thought, would be found in the state of the nervous system which permitted rapid molecular activity, or easily altered cell changes; and if the nerve centres could be maintained in ideal integrity, an individual might pass safely through any epidemic.

Dr. Dean replied that disease need not necessarily depend upon a nervous system, for it is known that vegetables are subject to disease, and yet they have no nervous system.

Stated Meeting, June 12.

Uterine Tumor or Pregnancy.—Mistaken Diagnosis.

Dr. Atwood related the particulars of a case sent him for diagnosis. A lady, a multipara, had noticed an enlargement in the left iliac region, principally, which was now of seven months duration,

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not increasing in size during the last several months, and attended with great pain. A mother, sister and aunt had died of uterine carcinoma. Her physicians in the country had treated the case as one of uterine tumor, not only making application to the os, but introducing a sound into the uterus on several occasions.

Dr. Atwood found the os flaccid, and by bimanual palpation thought he could make out the outlines of a child. He was, however, not certain that pregnancy existed. In consultation with Dr. Gregory the sound of the fetal heart or of something resembling it was detected. A few days afterwards Dr. Atwood was called to see the lady, found her in labor, and delivered her of a child weighing two pounds and thirteen ounces, seemingly in the eighth month.

Dr. Gregory expressed himself as having been in much perplexity regarding this case. He found the os quite flaccid, and a distinct sulcus between os and tnmor. The sound of the fetal heart was uncertain, and the doctor had heard sounds in connection with fibroid and other tumors of the uterus much resembling this one. The family history was significant; there existed edema of the lower extremities and abdominal pain. The lady declared herself to be no larger than at the third month of the enlargement. There existed a discharge of fluid a week before delivery, neither offensive nor acrid, a suggestion therefore of pregnancy. Taking the anomalous symptoms into consideration, Dr. Gregory declared himself unable to give a decisive opinion.

He related an anomalous case where as consultant he passed a sound into the uterine cavity of a lady who had declared pregnancy to be an utter impossibility. On the following day she was delivered of a fetus, but pain did not diminish, and the uterus instead of diminishing increased in size. Ten days afterward he opened the abdomen, and finding a diffuse fibroid removed the entire uterus, a happy recovery following. He would advise in abdominal tumors in women with unusual symptoms not to hesitate to doubt, but rather to hesitate to be certain.

Sounding Pregnant Uterus.

Dr. Hulbert related an instance to illustrate the immense amount of abuse a pregnant uterus may stand. A woman was admitted to the Female Hospital with uterine trouble, who, amongst other things, had been subjected to the introduction of the uterine sound. She was insane, her delusion being that she was extremely filthy. Her

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husband declared that she could not be pregnant. An examination disclosed a large bilateral laceration of the cervix. After waiting one month the doctor was satisfied that she was not pregnant, and with the hope that a cure of the lacerated cervix might cure her insanity, he operated, denuding freely, and passing a sound several times into the uterus. He introduced ten sutures. In ten days he removed the sutures finding a very satisfactory union. In eight days more, the eighteenth after the operation, the patient aborted, and was safely delivered of a fetus of three months.

Colles' Fracture.

Dr. Mudd presented a patient treated for Colles' fracture with a successful result. The fracture was treated with a simple straight splint with padding above the proximal end of the radius. At the end of the third week there existed a dense infiltration about the joint, far more than is commonly seen. Dressings were removed, and hot fomentations with massage employed. At the end of the second month the induration was undiminished and the hand was nearly anchylosed. At the end of the fifth month the induration has disappeared and mobility is good. There is some atrophy of the fingers and they flex with difficulty. There had been at no time a disturbance of sensation. Bony union is perfect. This was one of a number of cases seen by Dr. Mudd in which he attributed the tissue disturbances to nerve injury by the lower fragment most probably to nerve contusion.

He had had a case of injury to the brachial plexus followed by complete loss of motion and sensation, subsequent atrophy of the limb necessitating amputation of the shoulder, when complete loss of nerve substance was found at the site of the contusion.

Dr. Atwood had never had anything like a good result in the treatment of Colles' fracture. In each case he had been more careful than with the preceding one. He had always used the pistol shaped splint and had been careful to occasionally remove the splint and have the patient practice finger gymnastics. In every case stiffness of the wrist joint and fingers had followed. In his next case he would use a straight splint so as to allow the fingers to be unconfined.

Dr. Mudd thought it possible to secure a good result in Colles' fracture in ninety per cent of cases. He was astonished that Dr. Atwood used the pistol splint. He had not used it for eighteen

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years. It was of every importance to obtain perfect adjustment at the first dressing. Dr. Mudd illustrated his manner of adjustment and disposition of the pads. He used a straight board splint with slight padding on the palmar surface with a distinct pad of cotton above the border of the radius. In order to prevent teno-synovitis the results of which often produced lasting deformity and damage, he was in the habit of removing that portion of the splint projecting beyond the metacarpal bones at the end of ten days, and in a week to remove another portion of the splint, and at the fourth or fifth week to remove the splint entirely. Passive motion ought not to be made before the bones are fixed and a new deposit made. Many cases of Colles' fracture are treated as sprains, since often crepitus cannot be elicited. If one remembers well the osseous anatomical guides, fracture can be determined without manipulation. In sprains the prominence is on the palmar surface, in fracture on the dorsum.

Dislocation of the ulna from rupture of the ligament connecting it to the radius is rare. A looseness of the joint remains as a result of this trouble.

Dr. Gregory had seen this sequel a number of times.

Dr. Lutz desired to know what Dr. Mudd did to prevent this displacement of the ulna.

Dr. Mudd replied that he used a pad of cotton over the ulna, pressing it towards the radius. Some deformity in this complication was often unavoidable.

Dr. Gregory had not abandoned the old pistol shaped splint, and had heard no good argument to prove that such a splint invited subsequent deformity. If the first adjustment was correct he did not think the kind of splint mattered much. He thought deformity almost absolutely certain in every fracture—sometimes, of course, so slight as to not be apparent. Bones did not unite without scarring at the site of fracture, and there is no such thing as scar tissue without a departure from the original. He had never seen a Colles' fracture treated with a perfect result. The almost universal rule is deformity. The displacement of the ulna incident to the injury is perhaps the most frequent cause of deformity. The wrist is extremely seldom left so that the skilful eye and hand cannot detect that some accident had happened to it.

As to the straight splint, cut off at the metacarpal joints, Percival Pott had once said justly that a splint that does not control neighboring articulations was a mischievous splint.

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Dr. Mudd thought that from the history of the pistol splint the idea in its use was that the ulna would be used as a fulcrum for pulling the radius into place. This would be less comfortable than a straight splint since it would put injured ligaments on the stretch, and invite inflammation of their structure with subsequent capsular adhesions. He agreed with the president that when once the fragments are in position any splint would answer. As far as scarring was concerned this would produce only shortening, a condition which would only determine a deformity in these cases.

Stated Meeting June 19.

STRICTURE OF URETHRA.—PRELLER'S CASE.

Dr. Prewitt exhibited the genital organs of Preller the victim of Maxwell in the Southern Hotel tragedy. The defendent in his statement had declared Preller to have been suffering from urethral stricture for which he had administered the chloroform preparatory to the introduction of a catheter. Dr. Prewitt was called upon to be present at the disinterment of the body, in order to examine for evidence of stricture. Although the body had been buried a year, so well had the embalming fluid performed its work, that scarcely any odor was perceptible, and it was easily possible for one acquainted with the deceased to have recognized him. Dr. Prewitt had seen many worse bodies in the dissecting room. The genitals were somewhat discolored, the glans penis being dried. The parts were cut out, the flesh being of a red color. The specimen was placed in glycerine and alcohol for a few days, when the dried portion of the penis became quite pliable, when the urethra was laid open in its superior wall. No trace whatsoever of stricture or other disease can be found. Dr. Prewitt did not believe that spasmodic stricture ever existed except with organic stricture, which might be very slight, but where always mucous membrane changes could be demonstrated post mortem. A small portion of the bladder was part of the specimen, and its walls exhibiting no change was corroberative evidence against stricture.

Dr. A. Green was sure that masturbation could never produce stricture.

Dr. Dean agreed with Dr. Prewitt that stricture always meant urethral organic change.

Dr. Bryson regretted that the whole of the bladder had not been

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removed, since the state of its walls was strong evidence *pro* or *con.* His experience was large as illustrating the fact that many patients were supposed to have stricture where nothing of the kind existed. We may as well call spasm of the sphincter ani stricture of the rectum, as call spasm of the urethra stricture. He did not believe that masturbation could produce stricture. In those cases where stricture is reported to have been caused by masturbation, he would rather believe that the stricture had been caused by the introduction of foreign bodies into the urethra, a common practice. He thought the specimen in a remarkable state of preservation.

Dr. Prewitt had been informed that the fluid used was called the oriental embalming fluid. When the body was removed from the trunk, it was greatly swollen and disfigured, but after embalming, was immensely improved, decomposition being arrested and the resulting gases expelled, so that the body shrank to its proper size.

Outward Dislocation of the Patella.

Dr. Fry reported a case of dislocation of the patella outwards; rather a subluxation, the patella resting on the outer part of the trochlear portion of the femur. He was rather surprised at the amount of deformity. It was readily reduced. One does not often see the accident, since it is so often self-reducible or is reduced by a bystander without the aid of a physician.

Dr. Atwood mentioned a case of luxation of the fibula backwards in connection with a dislocation of the patella, and a comminuted fracture of the lower end of the femur. The patella was readily reduced and the fracture dressed. In three weeks the man, in spite of advice, went to work and never afterwards complained of the accident, walking with only a slight limp.

Dr. Prewitt said that usually to reduce a dislocated patella was a simple matter, and yet, occasionally, a very difficult one. The most usual method was to place the heel of the patient on the shoulder of the surgeon to relax the quadriceps extensor, and then, if necessary, to put the handle of a key under the edge of the patella as a fulcrum to return the patella. This was, however, seldom necessary.

He regarded the case reported by Dr. Atwood as very remarkable, considering the injury and the short time ensuing between the injury and useful recovery.

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Sponge Tent Eight Days in the Uterus.

Dr. J. M. Scott reported a case of uterine hemorrhage. On inspection, he found a sponge tent in the neck, which had been placed there eight days before by a physician. The odor and hemorrhage ceased on its removal.

Black List of Medical Colleges.—The following list contains the names of medical colleges whose diplomas are not recognized by State Boards of Health as evidencing qualification to practice medicine: American Eclectic College, Cincinnati, O.; American Health College, Cincinnati, O.; American University of Pennsylvania (Buchanan), Philadelphia, Pa.; Beach Medical Institute, Indianapolis, Ind.; Bellevue Medical College of Massachusetts; College of Physicians and Surgeons, Buffalo N. Y.; College of Physicians and Surgeons, Milwaukee, Wis.; Eclectic Medical College of Philadelphia; Edinburgh University, Chicago and St. Louis; Excelsior Medical College, Boston, Mass.; Hygeo-Therapeutic College, Bergen Heights, N. J.; Hygeo-Therapeutic College, New York City; Joplin Medical College, Joplin, Mo.; Livingston University, Haddonfield, N. J.; Medical Department of the American University of Boston, Boston, Mass.; New England University of Arts and Sciences, Manchester, N. H.; Penn Medical University, Philadelphia, Pa.; Philadelphia University of Medicine and Surgery, Philadelphia, Pa.; Physio-Eclectic Medical College and Physio-Medical College, Cincinnati, O.; St. Louis Eclectic Medical College, St. Louis, Mo.; St. Louis Homeopathic Medical College, St. Louis, Mo.; Curtis Physio-Medical Institute, Marion, Ind.; American Anthropological University of St. Louis; Medical Department of Drake University, Des Moines, Ia., and King Eclectic Medical College, Des Moines, Ia.

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SELECTIONS.

DR. FREIRE'S YELLOW FEVER INOCULATIONS.

In a paper on yellow fever in Brazil, read before the Kansas City Medical Association, at its annual meeting, Atchison, May 19, 1886, and published in the *Boston Medical and Surgical Journal*, June 10, Dr. H.M. Lane, who has been for a number of years a resident of Brazil, gives the following interesting résumé of Dr. Freire's work concerning this disease, and his own personal experience of the protection by inoculation as practised by Dr. Freire. The value of the testimony of intelligent observers with regard to personal experience in such cases can hardly be over-estimated.

"Dr. Freire's investigations are already so well-known, that any thing more than a mention of his work is unnecessary. He does not exactly claim to have discovered a new germ, but simply that he has, from the granular elements already noticed by Rhees in 1830, Hassel in 1853, Alvasengu in 1856, and Jones in 1873, in the blood and other fluids of yellow fever patients, succeeded in isolating, defining and determining the exact character of the micro-germ, which he calls the *cryptococcus xyanthogenicus*, whose causal relation to the disease he has demonstrated through a series of carefully conducted experiments in the clearest manner. Dr. Freire's work was commenced in 1878 or 1879, and in 1880 he published a full statement of the results he obtained, and his mode of obtaining them.

In 1883, obeying the mandate of his government, he extended his researches to discover some means of utilizing the work already done for a preventive vaccination after Pasteur's methods. The whole story of his success, how he discovered animals that possessed the requisite receptivity, the cultivation and successive attenuations, is told, and well told, in his "*Doctrine Microbienne*,"

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a book of six hundred and thirty pages, where every step of his work is described and illustrated; published in Rio in 1885.

He commenced his inoculation of the pure culture at once, and in January of the present year, published his "*Resultats Statistiques*," detailing 3,051 inoculations from January to August of 1885, without a single death. He shows that in the immediate neighborhood of these cases, 278 *non-inoculated persons* had died of yellow fever, while not a single inoculated person had perished.

His inoculations now reach nearly 7,000. During the present epidemic I was in Rio, and took occasion personally to follow up a large number of the inoculations reported, and during a whole week, with the assistance of friends, I was unable to find a single well authenticated case of an *inoculated person* dying of yellow fever; but found numerous instances where persons *not inoculated*, living in the same yard and some times in the same house with those protected by inoculation, *had contracted the disease and died.* These facts have some significance. My own experience with the inoculation is not without value.

I arrived from the cool mountain region on the 16th of last March, during the prevalence of an epidemic of yellow fever, in perfect health. At eleven o'clock the next morning, Dr. Freire injected into my left deltoid one gramme of his pure culture of the yellow fever germ, the twenty-second attenuation. At 5 P. M., I had a slight chill, followed by a feeling of general discomfort, nausea, frontal headache, pain in legs and lumbar region, the temperature going up, with corresponding acceleration of pulse, until at 2 o'clock, A. M., of the 18th, it had reached 102.7°, which was the highest point reached. At this time I went asleep and slept two hours, when I awoke perspiring; the pulse and temperature gradually declined, until at 7 P. M. they had reached normal. Headache and other symptoms also left, leaving me, on the morning of the 19th, a little weaker than usual, without appetite and with a furred tongue, and the skin slightly jaundiced. There was an almost complete suppression of urine for twenty-four hours. The restlessness, the hot, dry skin, the thirst, nausea, headache and muscular pain, were all characteristic of the first period of yellow fever.

During the next week, I was constantly exposed to the disease in the infected districts among yellow fever patients without further trouble. It is worthy of note that a friend coming from

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the same place as myself a few weeks before, and passing a single night in Rio, had taken the yellow fever and died.

Numerous instances might be cited during the present epidemic, where people, particularly foreigners, coming down from the mountain resorts and passing one or two nights in Rio have contracted the disease and died.

It is reasonable to claim that my own case is a fair proof of the protective power of the inocculations. Now, whatever scientific value may attach to the experiments of Dr. Freire, whether the germ he cultivates be or be not the essential cause of yellow fever, or whatever may be the nature of the fluid he uses in his inoculations, and whatever the relation which his cryptococcus xyanthogenicus or any other micro-germ may bear to this disease, we have here certain unchallenged facts which all fair minded men must consider. There are nearly 7,000 vaccinations, with name and residence of persons vaccinated given, and the unanswered challenge for any one to produce an instance of one of these cases dying of yellow fever.

The patient, untiring zeal with which Dr. Freire has pursued this difficult subject for the past seven years, his great ability, his unquestioned integrity, and the unrivaled facilities he has had, as well as the vast importance of the subject, all demand for his claim respectful attention.

No argument based upon theory, no display of cheap rhetoric, no indecent exhibition of professional jealousy should be allowed to stand in the way of a searching examination of the value of those alleged discoveries. If true, their value to our Gulf States cannot be valued in dollars and cents; if not true, it is due to the people of this country that they be fairly disproved.

Drs. Freire and Carmona have both made out a strong *prima facie* case, and to attempt an argument on the supposed difference between the germ claimed by Freire and the one presented by Carmona, is both weak and wicked. The rapid changes which these micro-germs undergo in completing the cycle of their existence, is well known to bacteriologists — their extreme sensitiveness to the media in which they develop, the relation of the names usually given to the form rather than to the essential character of the germ, all go to show how little real importance attaches to the point. The comma baccilus of Koch may be produced by the segmentation of the spirilla, and might be called by another name

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without at all disturbing its relation to the diseases with which it is fought to connect it.

PROPOSED STATUTE REGULATING DISSECTION, TO BE SUBSTITUTED FOR THE EXISTING STATUTE IN THE REVISED STATUTES OF MISSOURI OF 1879, SECT. 6309 ET SEQ.

Resolution passed at the last session May 3d, 1886, of the Missouri State Medical Association.

Whereas, the existing Statute known as the Anatomy Act has proven to be altogether inadequate in its intended operation, rather hindering the practical study of Anatomy than favoring it;

And Whereas, It will require a great effort on the part of the Profession of the State to secure the passage of a more equitable statute; be it

Resolved, That this body, representing the medical interests of this state, hereby pledges itself to use every means during the remainder of the present year to influence the members of the State Legislature to the end that at its next sitting, Janary, 1887, a more satisfactory statute be enacted, that shall be, at least, not less liberal than such as already exist in other states of the Union.

Also, that this body, in view of the importance of the matter, urge action in the same direction upon all local societies, and upon all individual members of the Profession who may be able, independently, to give effective service.

To the Medical Profession of the State of Missouri, on the part of the Missouri Anatomical Association (formed by representatives from each chartered medical college in Missouri).

The present Anatomy Act of the Missouri Statutes, 1879, contains the following provisions, which, in practice, experience proves are almost an equivalent to a prohibition of dissection: *First*, the Act makes it *optional* with superintendents of hospitals, etc., whether they shall allow bodies in their charge to be used for dissection.

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Second, The Act prohibits the use of the body of any person, even if unclaimed for burial by relatives or others, if such person before death has expressed a wish for burial. Political reasons, religious scruples and other motives have been found to influence officers to defeat the spirit of the Act. City undertakers may trump up fictitious claims upon bodies; and, to make a farce of the whole Act, it is said that a superlatively considerate attendant actually asked a dying pauper if he wished to be "cut up" by the medical student after death. In fact, as the law now stands, this "legalization" of dissection puts the profession in a worse position than when, in absence of permissory law, resurrectionists were tacitly allowed.

The proposed statute is essentially similar to those of Pennsylvania and Illinois, which are said to work satisfactorily. An abundance of dissecting material will be supplied, so that not only schools but preceptors throughout the state may be amply provided, as their necessities require. There will then be no excuse for the desecration of graveyards, with the consequent distress und alarm of the community.

An Act.

For the promotion of Medical Science by the Distribution and use of unclaimed Human Bodies for Scientific purposes through a Board created for that Purpose, and to Prevent Unauthorized Uses and Traffic in Human Bodies.

Section 1. Be it enacted by the General Assembly of the State of Missouri, as follows: That the professors and demonstrators of anatomy of the medical colleges and schools of the State of Missouri which are now or may become hereafter incorporated, shall be and hereby are constituted a board for the distribution and delivery of dead human bodies hereinafter described, to and among such persons as under the provisions of this Act are entitled thereto.

The said board shall have full power to establish rules and regulations for its government, and to appoint and remove proper officers, and shall keep full and complete minutes of its transactions. Records shall also be kept under its direction of all bodies received and distributed by said board, and of the persons to whom the same may be distributed, which minutes and records shall be open at all times to the inspection of each member of said board, and of any circuit attorney of any county within the State of Missouri.

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Sec. 2. Superintendents or wardens of penitentiaries, houses of correction and bridewells, of hospitals, insane asylums and poor-houses, and coroners, sheriffs, jailors, city and county undertakers, and all other state, county, town and city officers, in whose custody the body of any deceased person required to be buried at public expense shall be, are hereby required immediately to notify said board of distribution, or such person or persons as may be designated from time to time by said board, or by its duly authorized officer or agent, whenever any such body or bodies come to his or their possession, charge or control, and shall, after giving proper notice to relatives or guardians of the deceased, without fee or reward, deliver such body or bodies to said board and its agents, or the physicians and surgeons from time to time designated by it, who may comply with the provisions of this Act, to take and remove all such bodies to be used within this state for the advancement of medical science; but no such notice to said board need be given, nor shall any such body be delivered, if any person claiming to be and satisfying the proper authorities that he or she is of kindred, or is related by marriage to the deceased, shall ask to have the body for burial, but it shall be surrendered for interment.

Sec. 3. The said board, or its duly authorized agent, may receive and take such bodies so delivered as aforesaid, and shall, upon receiving them, distribute and deliver them in the following manner:

To incorporated medical colleges and schools in proportion to the number of students, which number shall be set forth in a sworn statement submitted to the board at such times as it may direct, by the dean, secretary or registrar of the college or school, and to any physician or surgeon entitled under the laws of the state to practice. Instead of receiving and delivering the bodies itself, or through its agents, the board of distribution may, from time to time, either directly or by its authorized officer or agent, designate physicians and surgeons who shall receive them, and the number each shall receive. In the distribution preference always shall be given to the medical schools and colleges, and to the physicians and surgeons of the county where the death of the person described took place.

Sec. 4. Before any medical college or school, or any physician or surgeon, shall be entitled to receive any bodies under this Act, they shall furnish to the county, or, in the city of St. Louis, to the city, a bond in the penal sum of one thousand dollars, conditioned

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that all such bodies shall be used only for the promotion of medical science within this state, which bond shall remain on file in the office of the Clerk of the County Court, in the city of St. Louis in the office of the City Register; and whoever shall sell or buy any such body or bodies or shall traffic in the same, or in any manner aid and assist in any traffic in the same, shall be deemed guilty of a misdemeanor, and on conviction shall be fined in a sum of not less than one hundred dollars and be imprisoned for a term not less than thirty days nor more than one year, the fine accruing from such conviction to be paid into the school fund of the county where the offence shall have been committed.

Sec. 5. Neither the state nor any county or municipality, nor any officer or servant thereof, shall be at any expense by reason of the delivery or distribution of any such body, but all the expenses thereof, and of said board of distribution, shall be paid by those receiving the bodies, in such manner as may be specified by said board of distribution or otherwise agreed upon.

Sec. 6. Any person or officer having duties enjoined upon him by the provisions of this Act, who shall neglect, refuse or omit to perform the same as hereby required, shall be guilty of a misdemeanor, and on conviction thereof shall pay a penalty of not less than fifty dollars nor more than one hundred dollars for the first offense, and for the second offense a penalty of not less than one hundred dollars nor more than five hundred dollars, and for the third offense, or any offense thereafter, the penalty of not less than five hundred dollars or to be imprisoned in the county jail not less than six nor more than twelve months, or both, at the discretion of the court, such penalties to be sued for by the health department as the case may be.

Sec. 7. That all Acts or parts of Acts, inconsistent with this Act be and the same are hereby repealed.

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THE QUESTION OF THE VALUE OF ARSENIC IN DISEASES OF THE SKIN.

By W. A. Hardaway, A. M., M. D., *Professor of Dermatology in the St. Louis Post-Graduate School of Medicine, and in the Missouri Medical College; Ex-President of the American Dermatological Association*

The editor of this Journal has asked me to write a brief paper giving my personal experience as to the value of arsenic in skin diseases. I shall willingly comply with his request in the hope that others may be induced to do likewise, and that, in this way, we may get at some definite conclusions regarding this vexed question of therapeutics.

For obvious reasons, which need not be entered upon here, it is a matter of the extremest difficulty to satisfactorily determine the precise indications for therapeutic agents, and the history of the employment of arsenic in diseases of the skin affords us a striking illustration of the truth of this observation.

As Morris[1] has stated, a study of the literature of this drug is unusually interesting, as exhibiting the "alternate excessive confidence in and excessive suspicion of it at different periods." As an example of this in our own day, we may note, on the one hand, the extreme credulity of Hunt, and the rather supercilious scepticism of Hebra.

I do not know of a better way of arriving at an expression of opinion in reference to the use and abuse of arsenic in dermatological practice than by offering a somewhat running commentary on the propositions recently presented by Dr. G. H. Fox to the New York Dermatological Society in a paper on the "Value of Arsenic in Skin Diseases,"[2] which I shall take up seriatim:

1. "*The very common practice of giving arsenic in nearly every case of skin disease is irrational aad harmful.*"

This general statement will undoubtedly be accepted by all educated physicians, for a moment's reflection will show that cutane-

1. "The History and Therapeutic Value of Arsenic in Skin Diseases." *Practitioner*, 1880. I am much indebted to this valuable article for various facts relating to the history of arsenic.

2. *Journal Cutan. and Ven. Dis.*, June, 1886, p. 179.

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ous affections acknowledge the most varied etiology and present the most diverse pathological conditions, and no single remedy could by any possibility be of service in all, and would most likely prove injurious to some of them.

2. "*It is irrational because, in the majority of cases, the remedy produces very little, if any benefit.*"

This second proposition follows as a corollary from the first; for certainly, if the usefulness of the drug is restricted to a comparatively small number of maladies, it would be irrational to employ it in the majority of cases where little or no benefit could be reasonably expected from its administration.

3. "*It is harmful for the following reason*: a, *In many cases it increases cutaneous congestion, intensifies pruritus, and thereby aggravates the eruption*; b. *It is very frequently relied upon to the exclusion of other and better plans of treatment.*"

To the first half of the proposition I would give a very hearty assent, since clinical experience is here supported by experimentation. Ringer and Murrell found that when frogs were poisoned by arsenic, the cuticle could be stripped off the whole body with great ease within a few hours after its administration. Certain experiments by Miss Nunn prove that "the general effect of arsenious acid upon the epidermis is to cause a degeneration and partial solution of the protoplasm of the cells, whereby (1) the whole epiderm becomes loosened from the subjacent derm, (2) the cells of the Malpighian layer become incoherent, so that the whole layer collapses, and its well known architectural features become obscured, and (3) the intermediate layer separates from the Malpighian layer below, and at times from the corneous layer above."[1]

A consideration of the bearing of these important investigations on the remedial employment of the drug will show that its use is interdicted in acute cases, as it "increases metabolism in the cells of the epidermis" (Brunton), and consequently increases cutaneous congestion, intensifies pruritus, and aggravates the symptoms generally. As stated above, clinical experience amply confirms these researches, and it is with me an almost every-day occurrence to have my attention called to cases that have been made worse by the injudicious prescription of arsenic.

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1. Quoted by Morris, loc. cit.

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The second half of the third proposition (subhead *b*) is also undoubtedly true; thus, if arsenic is relied upon for the cure of a parasitic affection of the skin, and no appropriate local treatment is instituted, we are surely doing more harm than good. I take it, however, that Dr. Fox meant this statement in a somewhat different sense. I rather believe that here he refers to the large number of cases where arsenic is administered in a routine manner, as in some occult way "good for skin diseases," when such cases urgently require to be treated symptomatically and as regards their individual necessities. For example, a rosacea is often caused or kept up by some disorder of the stomach or uterus, and in such instances it would be the part of good practice to remove the exciting cause; but only too often this blind confidence in the efficacy of arsenic will lead to a neglect of the proper measures.

As Niemeyer once said of blood-letting in pneumonia, that he sometimes bled in spite of the pneumonia, I think I may make this concession to arsenic, that I sometimes give it in spite of the apparent contra-indication to its use. In addition to its local effect upon the skin, arsenic also has a certain definite general action; therefore, in cases where I have had no desire to obtain its especial local influence, I have administered it for its modifying effect upon the economy, and especially the nervous system, and at times also when I wished to avail myself of its anti-periodic properties. But even here I should wish to postpone its employment until the acuteness of the cutaneous symptoms had somewhat abated.

4. "*The universal employment of arsenic in the treatment of skin diseases is no more a proof of its value than was the former practice of venesection for most diseases a valid argument in favor of that plan of treatment.*"

This proposition may be allowed to stand without comment. I may be permitted incidentally, however, one statement which relates to the reason of the widespread belief in the utility of arsenic for skin diseases. It has often happened in the history of medicine that when, in some way or other, a certain plan of treatment had been found advantageous in a given disease, all other cases of the same disease, or all diseases bearing a likeness to it, were immediately subjected to the same treatment, and as a proportion of the whole number answered the indications, the drug or plan of treatment soon became looked upon as nearly specific. This was far truer of former times than of the present, when the art of di-

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agnosis is better understood, and is still in a measure true for dermatology, where skill in diagnosis is not a general accomplishment. Thus when Girdlestone, in 1806, first advocated the use of arsenic in psoriasis he hit upon the disease in which, in its chronic stages at least, it is of value and, therefore, when it was seen that it had a marked modifying influence on a "skin disease," and the differential diagnosis of cutaneous diseases not being well understood, it naturally came to pass that arsenic was soon looked upon as appropriate to all apparently similar troubles. A parallel case has arisen in our own days and strangely enough, concerns the same disease. I refer to the use of chrysarobin, which, on account of its utility in psoriasis, is largely prescribed in general practice for nearly all skin diseases, and I must say to the great detriment of the patient.

5. "*The beneficial change which sometimes follows the use of arsenic is sometimes due to adjuvant treatment, and erroneously attributed to the administration of this drug.*"

6. "*In spite of the wide-spread belief in the value of arsenic, there has never been published a series of carefully recorded cases in which the sole administration of this drug has produced any notable therapeutic results.*"

These two propositions may be considered together. Undoubtedly it is true that for a large proportion of cases of skin disease the adjuvant treatment—and there is nearly always some such assistance—has done more good than the arsenic, and consequently most of the recorded cases in which arsenic was presumably the sole agent employed are worthless for purposes of stndy, since in the majority of such instances the diet and hygienic surroundings have been looked after, and very frequently local applications have been employed. I shall delay consideration of those cases in which arsenic alone has apparently effected cures until we have examined Dr. Fox's next proposition.

7. "*There are some forms of chronic inflammatory skin disease, and possibly some affections of a malignant type, in which the internal use of arsenic will undoubtedly exert a beneficial influence.*"

To confine our attention first to the non-malignant group of diseases. As a result of clinical experience, fortified as it is by experimental proof, every dermatologist will readily admit that the internal use of arsenic will cause the disappearance of certain chronic inflammatory disorders of the skin, such as psoriasis, lichen planus perhaps pemphigus, and probably a few others. After ad-

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mitting so much, the question comes up: Are these results invariable; and if they are, are there no other plans of treatment that are quicker and better? Speaking from my own experience, I must say at once that arsenic often completely fails in the very diseases in which *a priori* we should expect the best results. In an excellent paper on the "Limitations of Internal Therapeutics in Skin Diseases,"[1] Dr. J. C. White uses the following language in regard to arsenic: "There is scarcely any affection in which it is not given by the profession with routine constancy. Its powers, however, are, unfortunately, very limited. For outside of this group (inflammations) it may be said to be powerless, while within it its action is positively injurious in the most inflammatory states of the skin, and of real service only in a very small proportion of the affections included in it. When I mention psoriasis, chronic eczema, lichen ruber, and pemphigus, I have named all of them in which we can confidently rely on it in any great measure. Even in these we know how often it utterly fails to accomplish what we expect of it, and how impossible it is to predict in any individual case, however favorable apparently, the measure or rapidity of its success. Upon the permanency of its influence in the recurrent forms of these diseases we cannot depend."

Mr. Jonathan Hutchinson vaunts arsenic as a specific in pemphigus, but neither Hebra nor Tilbury Fox found it to be such. The latter expressly declares that "there is no specific for pemphigus. Arsenic is declared to be one, but it often signally fails to cure the disease, and I have seen quinine in full doses do much more good."

Such has been my own observation, and in a case of pemphigus foliaceous under my care everything failed to benefit the patient. I may also say in this place that I have never seen the slightest good come from the use of arsenic in eczema or acne, except when the indications for its use were found elsewhere than in the skin, and then only in a limited number of cases.

Indeed, nearly all the chronic cases that come under my care have already taken the drug for long periods and in various doses. Acting upon a suggestion of Piffard's, I think, to the effect that a minute dose might accomplish what a large dose failed to secure, I have given arsenic in infinitesimal quantities in acute affections, but, I am sorry to relate, also without effect.

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1. Archives of Dermatology, April, 1882.

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Admitting, however, that arsenic, even when given by itself, is capable of removing certain chronic inflammatory skin diseases—and this I have already acknowledged to be the case—I must still repeat my former question, viz.: Are there no other plans of treatment that are quicker and better? I must emphatically answer in the affirmative. While I know that arsenic will very often cause the disappearance of a psoriasis, I place infinitely more reliance on the local treatment, and if I were restricted to the one or the other, I should elect to use the latter. By the employment of local measures in psoriasis—*e. g.*, chrysarobin—the mode of action is about the same as comes from the internal administration of arsenic, with this advantage, that it is quicker and more direct; and I am confident, from much experience in the matter that relapses are not more frequent under one régime than under the other.

I am aware that arsenic has been looked upon as a sovereign remedy in lichen planus, and especially good results are said to have been obtained by its hypodermic administration (Koebner); but here also it has been known to fail, and lately Unna has claimed much more rapid relief from purely local measures.

As regards the curative influence of arsenic on the malignant affections of the skin, it is a matter of medical history that the drug has been given in cancer, real or supposed, from the date of its first introduction into therapeutics; but I doubt very much if any modern surgeon would pin his faith to it. Not a great while ago the profession was surprised and delighted with the report of Prof. Koebner's cure of a case of sarcoma cutis by the subcutaneous injection of arsenic, and while there is no sort of dispute as to the correctness of the diagnosis, or as to the results obtained, the query arises: Will such a happy issue be invariable? Unfortunately, in my own practice, two cases of sarcoma of the skin treated by arsenic—one only by the hypodermic method—were examples of conspicuous failure. Nevertheless, I should try it again, if the opportunity offered.

8. "*In most cases of inflammatory skin disease, regulation of the diet, and such hygienic and medicinal treatment as tends to improve the general health of the patient will do infinitely more good than the routine administration of arsenic.*"

The essential statements in this last proposition have been sufficiently considered in the foregoing paragraphs; it is, therefore, only necessary to express a general assent to its conclusions.

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Finally, I would say that I am far removed from therapeutic nihilism, and that I believe we have many agents which, when taken internally, are capable of influencing pathological conditions; but what I would most earnestly protest against is the crude idea of specific medication. There can be no such things as specifics, and a rational therapeusis must be based upon an intimate knowledge of both healthy and morbid processes. Therefore, to prescribe arsenic as in any wise a panacea for the majority of skin diseases, merely because of its efficacy in some of them, is highly unscientific and much to be deprecated.—*Jour. Cutan. and Ven. Dis.*, August, 1886.

ABDOMINAL PALPATION IN OBSTETRICS.

Although the possibility of obtaining information as to the position of the fetus *in utero*, by means of carefully conducted manipulation of the abdominal walls, is mentioned in most of the best text-books on obstetrics, its systematic use is neither advised in treatises nor taught in schools. That it should form no part of the usual practical instruction, is not difficult to understand. The whole system of imparting a knowledge of the subject in this country is, with one or two notable exceptions, so utterly imperfect and so absurdly inadequate, that the only matter for surprise is that the ultimate result should be as satisfactory as it is. With no obstetric wards in general hospitals, and in the absence of any facilities for profiting by the experience to be gained in special hospitals, it is indeed hard to suggest a means by which the end can be attained.

On the continent, generally, where a more liberal system exists, practical obstetrics form a recognized and efficient part of the usual curriculum, and there, too, great stress is laid upon abdominal palpation as allowing a fairly accurate diagnosis at a time and under circumstances which prohibit or prevent a useful vaginal examination. Even when this latter means is permissible, the valuable additional evidence to be obtained by palpation can only be disclaimed by those who have not been made conversant with its advantages. The subject is by no means new, so far as general ideas are concerned; but more recently Wigard, Mattei, Tarnier, etc., have given a remarkable stimulus to this method, and these ideas have since found an able exponent in Dr. Pinard, of the Lariboi-

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sière Hospital in Paris, who has systematized the method and brought it within the range of practical obstetrics.

Abdominal palpation, to yield practicable and reliable results, must of necessity be preceded by a competent knowledge of the ordinary and possible relations of the fetus with the uterus and abdominal cavity. These must be thoroughly mastered, as well as the mechanism of labor in its bearing on the position of the fetus.

The woman to be examined is placed on her back, with the head low and the legs flexed on the abdomen, the precaution having been taken to empty the bladder and rectum. The tumor will thus be rendered more prominent, and the parietes of the abdomen relaxed as much as possible. Notice should be taken of the thickness of the abdominal walls, as this may modify very considerably the sensation on manipulation. It is, moreover, desirable to employ this method before resorting to any other mode of examination, in order to have the mind free from any preconceived idea on the subject. The hands are then placed flat on the site of the tumor, and are pressed firmly in, so as to enable the observer to draw his own conclusions as to the size and the nature of the tumor. The most useful sign furnished by palpation is the *ballottement*, known in this country only as a sign obtainable by vaginal examination. This sensation of the rebound of a solid body floating in a liquid is as reliable and as easily obtained through the abdominal walls as *per vaginam*. At the same time active movements on the part of the fetus may be perceived, and the information so obtained may be controlled by means of the stethoscope.

It is well to begin by ascertaining the position of the head, and whether or not it has cleared the brim. For this purpose the hands are placed with the fingers together and pointing downwards on each side of the median line, and so that the tips of the fingers are just above the pubes. It may not be amiss to call attention here to the desirability of avoiding cold hands, as otherwise reflex contraction of the abdominal muscles will put a stop for a time to effective examination. These maneuvres should not be attended with discomfort (still less pain) to the woman, and the firm, steady pressure necessary to the object in view can be employed without involving either. The hands being in position they should be pressed down gently but firmly in the direction of the true pelvis, dipping behind the osseous arch. If the head be present and above the

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brim, it will easily be felt as a globular mass, readily movable, and offering on one side the characteristic sensation of a smooth hard surface, the forehead. If the head be engaged, that is, have passed the brim, the hands should be further pressed down, the woman meanwhile breathing deeply; and the head will then be detected, less readily movable or fixed, and the forehead will be felt at a higher level on the right (taking the first cranial position as an example). Having satisfied himself as to the situation of the head, the medical attendant should then examine the remaining part of the tumor. With the same gentle but firm pressure with the open hands, endeavors should be made to trace the plane of resistance, corresponding to the vertebral column, of the fetus, which in a woman with fairly thin abdominal walls can be followed up without difficulty. This will be found to terminate superiorly in a smooth, rounded, semi-elastic prominence which yields to pressure; and, continuing the examination, the small parts (knees and feet) may be felt on the right side, and active movements may be elicited. Should the preliminary search for the head behind the pubes not be successful, or be unsatisfactory, particular attention should be directed to the superior extremity, with a view of ascertaining whether it be the head or the breach. There are several important signs on which reliance may be placed for this purpose. The peculiar and independent mobility of the head on the neck, together with a break in the plane of resistance, are, taken together, very significant. The *ballottement* is here obtained with the greatest ease, and the return shock of the head is altogether more prompt and distinct than the soft impingement of the whole body. Sometimes the head is more to the rear, or it may be hidden beneath the false ribs; and in this case it is necessary to effect some slight rotation of the fetus before a satisfactory diagnosis can be made. The breech will generally be found in the iliac fossa of the opposite side to that of the head. When this state of things is discovered before the presenting part has become fixed, it is by no means a difficult task to effect version by external manipulation, so as to bring the head into the desired position over the entrance to the pelvis; and, when this has been effected, a suitable belt will maintain it in place. A periodical examination is, however, desirable to make sure that no further change in position has taken place. This operation is now performed almost daily in foreign hospitals, and with the most satisfactory results.

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In transverse positions of the fetus, the shape of the tumor will at once be detected to be different from the normal. The head, which has not been detected in the usual position, should be searched for in one or other of the iliac fossæ; and as soon as the plane of resistance, and consequently, the exact position of the fetus, have been made out, steps should be taken to rectify the malposition by the same means as in a case of breech-presentation; and the head, when brought down, should be fixed by means of the usual abdominal belt, especial care being directed to its retention there, until, by descent into the pelvis, its stability is ensured.

This procedure, as we have explained above, does not preclude the use of other sources of information; but in experienced and painstaking hands it may be made to furnish the means of diagnosis which would otherwise be altogethar impossible. It is not too much to affirm that in the obstetric wards at the Lariboisière Hospital, the birth of a child by other than a cephalic presentation is never permitted to take place, if at the time of application the fetus be still mobile, and if the fixity be such as to render readjustment impossible. The fact of the malpresentation is known long before it could be ascertained by vaginal examination, and suitable precautions can be taken in consequence.

Although, at present, means are not available for teaching this and other details of practical obstetrics in a manner worthy at once of the subject and of the metropolis in which we live, sufficient skill can easily be acquired by the general practitioner, with a little perseverance, to enable him to derive much help in his work, and especially in the more difficult cases.—*Brit. Med. Jour.*, July 10, 1886.

THE RIGHTFUL CLAIMANTS.

The claims sometimes put forward by certain practitioners, at home and abroad, of originality in the use of this or that drug, not unfrequently border on the absurd. The principle that should rule the award of honors in the domain of therapeutics is not appreciated as it ought to be, and individuals seek to take credit to themselves for what is really but an insignificant application of the general rules laid down by earlier observers. Many drugs, the physiological action of which we have now ascertained with some approach to

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accuracy of detail, were employed empirically many years—and, it may be, centuries—before some one, by painstaking and intelligent research, enabled us to give a reason for the faith that is in us, and to use the drug, not merely because it has been recommended for the purpose, but because its action is such as to authorize a hope of benefit being derived. Some credit is doubtless due to the persons who have the good sense to recognize a useful agent when chance or accident puts it into their hands; but the real substantial honor is due to the man who applies himself to the task of working out its properties on the healthy organism, and then applies the knowledge so acquired to the treatment of disease.

The science of therapeutics has been much less indebted of late years to chance discoveries than of yore. Every new compound evolved from the laboratory of the chemist is carefully examined, with a view to its possible employment as a medicinal agent; and in this way the stock of available drugs—especially hypnotics—has been largely increased. Even where these latter additions do not fulfil the programme laid down for them by their introducers, the method is commendable as a means of extending our knowledge.

Take, for example, the case of cocaine, which was introduced not long since as a mucous anesthetic. It would be difficult to overrate its value in a limited class of cases; and the person who first made its useful qualities known, may experience a legitimate pride in seeing how widely his suggestions have been adopted, and how useful they have proved. The general rules of its action as a local anesthetic having been laid down, there is no room left for further claims of originality on the ground of its more limited application in particular ailments; and the fact of having first rammed into an aching tooth, or smeared it over a too sensitive vagina, cannot be considered a sufficient justification for anyone to arrogate to himself a little brief authority on the subject.

The mere introduction of a hitherto unknown drug is not *per se*, anything to be very proud of; anybody can look out some plant or substance not noticed in current treatises on materia medica, and then advocate it as suitable for the treatment of a certain disease. All that is necessary is to ascertain or provide a Latinized botanical name, and publish it accordingly. The credit, if any, is due to the systematic observer, who checks the vague assertions made by the other, and shows how and why it is or is not of use. He who

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shall lay down exact rules for the administration of such a drug as digitalis, and show us how, why, and when it should be employed, will not be second even to the physician who, just 100 years ago, first called attention to the advantages attending its use in certain diseases. For want of such information, notwithstanding the knowledge we possess of its physiological action, this remedy has to be used rather in the hope that it may do good than on any preconceived idea of its suitability. So far, our knowledge concerning it is as often as not misleading, for its employment in cases where theoretically it should be productive of benefit, is only too frequently followed by disappointment; while in others, where reason would lead us to anticipate undesirable results, its effect may be markedly beneficial.—*Brit. Med. Jour.*, July 7.

SHOULD POULTICES EVER BE USED AFTER AN ABSCESS OR WHITLOW HAS BEEN OPENED, OR TO AID THE SEPARATION OF SLOUGHS?

By Chas. B. Nancrede, M. D.

Our reply to the above question is a most emphatic negative. Before an abscess or whitlow has reached the stage when either the patient consents to incision, or the surgeon is willing to lay it open, undoubtedly poultices serve a useful purpose. We are willing to go further, and admit that in the case of a felon, where sloughs have to be separated, or in a wound where the same process has to be gone through with, poultices will hasten the separation of dead tissue, but—and this is a most important "but"—will the whole duration of the case be lessened, and will the minimum of danger result? Most assuredly not. We cannot help thinking, for scientific reasons, that the vulgar belief has some truth in it, that prolonged poulticing causes death of the bone in some cases of whitlow. Let any unprejudiced surgeon compare the appearances presented by a poulticed felon, and one treated after the method I advocate, and I feel convinced that half my position will be readily conceded.

A few words as to the anatomy of the distal segments of the fingers will render more clear the truth of my pathological deduction. The distal phalanges have, in reality, no distinct periosteum, as such, the whole fibro-fatty tissue of the finger pulp serving the pur-

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pose of a scaffolding for the support of the nutrient blood-vessels. Hence inflammation of this tissue so often ends in death of the bone, for it too commonly results in more or less sloughing of the pulp, i. e., the periosteum dies and the bone with it.

It is not my present purpose to dwell upon the proper treatment of whitlow, only upon the best dressing after an incision has been made into one; but I would beg my readers to impress upon their minds the above anatomical fact, which will induce them, I believe, to freely incise a commencing whitlow whether pus has already formed or not, merely to save the vitality of a tissue upon which depends the life of a bone.

What, now, must be the effect of a poultice on such an inflamed tissue? The only chance of its regaining vitality sufficient to preserve the life of the phalanx is to have diminished the amount of congestion and the quantity of the inflammatory exudates, which are strangulating the blood supply. Again, we will not stop to argue whether the stable connective-tissue cells of the part proliferate, or whether only migrated white blood cells, or both, form the exudate, since the mechanical effect is the same. Heat and moisture in such a pathological condition tend to still more relax and therefore render, on hydrostatic principles, more sluggish the blood current, and nature is compelled, in the attempt to relieve this, to favor the egress of white blood cells in larger and larger quantities. If the chief outflow of these takes place directly from the incision, well and good, but how if the migrating cells crowd into the already over-filled interstices of the pulp, can anything but further strangulation of the tissue and harm accrue? We have heretofore entirely ignored the role that micro-organisms play in suppuration and sloughing, but it cannot fail to be seen that, if modern views are correct, the heat and moisture of the nasty, dirty relic of barbarism, called a poultice, must present the most favorable condition for their development.

A glance at the condition of the circulation in the surrounding undoubtedly healthy parts will convince any unprejudiced person that at least I have some grounds for my crusade against poultices.

To a less degree, so far as strangulation of tissue goes, my remarks apply to a contused and sloughing wound. My opponents will say what have you better to offer us, to replace this easy, time-honored method of dressing. Simply some form of antiseptic dressing. It would be certainly difficult for me to recall when I have willingly employed a poultice for a suppurating cavity.

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My preference for a whitlow is free incision, soaking in a mercuric bichloride solution, dusting freely with iodoform and dressing with absorbent cotton impregnated with the same drug. This usually need only be removed on the third day after, unless pain and tension be complained of. For an abscess, free incision, with counter-incision, if necessary, at the most dependent portion, the introduction through both orifices of a *large* drainage tube, the thorough and repeated syringing out of the cavity with mercuric bichloride solution, and the same iodoform and cotton. For a contused and therefore a future sloughing wound, antiseptic irrigation should be used, with appropriate incision, if there seems to be much risk of inflammatory swelling; if not, merely iodoform and cotton.

To what cases can this method be applied? To all such as warrant conservative treatment. Within the last seven weeks I have treated eight severe contused and lacerated wounds of the upper and lower extremities, with perfect success, except in one instance, where spreading gangrene set in and necessitated a successful thigh amputation. Two of these cases were severe compound fractures, produced, one by a cart, the other by a railroad train, while five were *very severe* "bumper crushes," i. e., received by the limb being caught between the bumpers of cars, either while being coupled or when the motion of the train was checked. The damage done by such accidents rarely admits of conservative treatment, and I certainly have not met, in as many years, with so large a number of fortunate cases, affording such admirable results. As my experience goes back to the simple cerate, poultice and bran-dressing period, I am competent to judge of the very different results attained by antiseptic methods. But can these effects be achieved only by the dressing suggested? By no manner of means. Only let Listerian principles be put in force; and Lister's own dressing, or a dozen modifications of it may be adopted. My personal preference is for the dressing suggested, on account of its simplicity, cheapness and efficacy.

Those who follow my advice will at first be disappointed by the primary tardiness of the cure. The sloughs separate only very slowly. But what matters it, if there be next to no pain, fever or suppuration. So long as the wound is aseptic your patient is safe, and when the slough does separate, instead of macerated, soggy, edematous tissues, slow to take on healthy action, you will have a healthy wound which rapidly cicatrizes. Your patient will not be

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emaciated, having been unable to eat, with a coated tongue, and a disordered gastro-intestinal tract—quite the reverse.

Finally, do not continue the iodoform too long, as after a certain point it inhibits the healing process; and when you see the granulations becoming either over-florid, or pale and edematous, resort to the use of powdered boric acid. When the sore becomes a superficial one I commonly use zinc or resin cerates, having first washed the sore with the bichloride, or some other antiseptic solution, and powdered it freely over with boric acid.

Of course, after bad crushes, suppuration will at times occur in the damaged intermuscular planes, without any direct communication with the wound. This will cause a sharp rise of temperature, pulse, etc., but being aseptic, as soon as the pus is evacuated, all these symptoms will subside in the course of twenty-four hours or less—*The Polyclinic.*, July, '86.

COMMUNICATIONS.

HOUR-GLASS CONTRACTION.

Liberal, Mo., Sept. 8, 1886.

Editors Courier: Chever Bevill wants to know if any of the readers of the Courier have seen a true case of hour-glass contraction. [Vid. Aug. Courier, p. 179.] Some eight or ten years ago, while I was practising in Ohio, I attended a hale, robust lady, aged about 25 years, in two confinements, first at eight months, child born by breech presentation. In a few minutes a violent hemorrhage caused me to look after the placenta. I introduced my hand and made an effort to bring it away, but failed; made a second effort, introduced my hand, and found no obstruction till I got well into the uterus, where there was a contraction which I passed by the usual method. With my fingers I scraped away the placenta which was attached to the fundus, and brought the whole placenta away; hemorrhage ceased and all was right.

In about twenty months afterwards I attended her again, and found the same condition of things as at first, excepting that she went to full term, nine months, and there was a head presentation.

In the upper chamber there was just sufficient space for the placenta, and no other part of the parturient canal was constricted. Now you can call it what you may. Respectfully,

B. F. Crumrine.

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ORIGINAL ARTICLES.

THE VOICE A FALLACIOUS GUIDE IN LARYNGEAL DIAGNOSIS.

BY J. C. MULHALL, M. D., *Professor of Diseases of the Throat and Chest, Beaumont Hospital Medical College, St. Louis.*

[*Admission Thesis before the American Laryngological Association, May*, 1886.]

IT goes without saying, it is nothing new to you that the vocal signs of laryngeal disease, without laryngoscopic proving, bear little or no weight in laryngeal diagnosis. Experience has taught me that this is often not the case with those who do not use the laryngoscope; that they are apt to venture opinion from voice signs alone, and thus occasion a delay, sometimes a serious delay, in treatment which, earlier directed, might have resulted more favorably to the patient, and saved the physician himself from an embarassing position. The laryngologist is the one above all others who, without the use of the laryngoscope but simply from vocal and respiratory symptoms, could most accurately guess the laryngeal condition, and yet not one would risk an opinion without actual inspection of the larynx. It occurred to me once, when in charge of a very large throat clinic, to take accurate notes in one hundred cases of laryngeal

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disease to determine the point as to what kind of diagnosis one could make after exhausting all means save the use of the laryngoscope. I thus became quite expert in determining the laryngeal condition before inspection, but I also learned that it was thus possible to make astonishing mistakes. I found that very serious changes could exist where, without the mirror, one would have expected little or nothing to exist.

It was thus impressed on me, for example, that tertiary syphilitic ulcers might exist in the larynx without the slightest pain being excited by the various physiological acts or by external manipulation, without alteration of the voice, without any symptom except cough and other acts calculated to expel secretion. It is intelligible to every one present that a unilateral paralysis may exist in the larynx without a laryngeal symptom, and it occurred to me once to find in the investigation of a thoracic complaint whose nature several confreres had failed to determine, complete paralysis of the left cord, unsuspected, (since no laryngeal symptom existed), by the patient or myself. This sign at once gave a clue as to the probable nature of the chest trouble, that of aortic aneurism, the truth of which subsequent events proved. Such a case at once proves that he who pretends to accurate diagnosis in chest diseases, if he be not a laryngoscopist, labors under a disadvantage which, in a given case, may prove disastrous to his reputation.

Just as optic neuritis in cerebral disease may exist without defect of vision, so may laryngeal disease exist without apparent disturbance of function.

Such a fact has compelled the neurologist to learn the use of the ophthalmoscope, and the similar fact should induce all those who pretend to diagnosis in chest diseases to learn the use of the laryngoscope. To multiply proofs would be tedious. Permit the recital of the following cases.

Mr. W., from the interior of Kansas, applied to his brother, Dr. W., of St. Louis, for relief from throat trouble. He was kindly referred to me. There existed slight pain on swallowing, dyspnea on exertion, frequent teasing cough, scanty, viscid expectoration, not marked loss of weight and strength, slight fever, occasional mild night sweats. There were no symptoms

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referable to the voice except that its intensity became feebler as the day advanced, a fact only elicited by careful questioning. I found typical tubercular ulcers on the free border of the epiglottis; one on the left ventricular band, three on the right band and irregular fissures in the interarytenoid fold. These lesions were surrounded by areas of mild congestion without swelling. The cords were intact in every particular and their approximation perfect. In the pharynx was also apparent a single ulcer of the same character as those in the larynx. At the left pulmonary apex were signs of infiltration, and at both mitral and tricuspid orifices regurgitant murmurs. When I informed Dr. W. that there existed laryngeal tuberculosis, and that this special feature made prognosis very grave, he was astonished, and declared that I must be mistaken, since his voice was as good as ever. The patient had been told in Kansas that there could be nothing very serious in the throat since his voice was so good. His decease followed in three months after his visit to St. Louis.

On December 7, 1885, I was consulted by a married lady, aged eighteen, for relief from a cough. She was pregnant five months. She declared herself to have no morbid symptom except cough and a husky voice. Her appetite was excellent, she had experienced no fever nor other symptom of hectic, a condition which had evidently deceived her family physician. I found general laryngeal congestion, edema of the interarytenoid fold, surrounding a shallow, irregular ulcer. At the right pulmonary apex existed dulness, tubular inspiration and expiration, broncophony and whispering pectoriloquy. Her temperature was 100.5°, expectoration muco-purulent. A diagnosis of laryngeal and pulmonary phthisis was made, and a fatal prognosis given her friends. Her voice grew more husky as the period for her delivery arrived, when her family physician, a man of great prominence, was summoned. He was informed of my gloomy prognosis. After a safe delivery her voice became almost as clear as ever it had been, and on this bare fact, he informed the happy husband, as I afterwards discovered, that I had made a serious error. I was called in after a few days, I presume, that I might admit my error. I found that the laryngeal edema and congestion had quite disappeared, but that the

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tell-tale ulceration still existed. The family physician was present, and looking into my mirror, was forced to admit that the lesion existed. The lesion in the lung had advanced considerably, and he was forced to admit to me the propriety of my conclusions. The facts of the case were that the hoarseness had depended on inflammatory edema which had disappeared as a consequence of loss of blood at delivery. That there is such a thing as gravid hyperemia of the larynx, just as there is gravid basal congestion of the lungs, just as there may be distention of the nasal erectile tissue from a gravid uterus, was a fact for consideration in this case, apart from the tubercular lesion.

The patient is now in the last stage of phthisis.

As I have before said, this humble contribution conveys nothing new to this Association. It is only intended as a proof to the general practitioner that the voice in laryngeal diagnosis is untrustworthy as evidence. I conceive it to be part of the mission of such an association as this to make as widespread as possible the use of the laryngoscope.

SCHOOL HYGIENE.

By E. M. Nelson, M. D., St. Louis.

THE systematic and thorough study of hygiene is a matter of comparatively recent date. That not only physicians but people generally are becoming more fully aroused to the importance of careful attention to the preservation of health and to the warding off of disease than has ever before been the fact, is apparent to every one who is at all familiar with the current popular literature of the day. The value of systematic, intelligent sanitation is evidenced by the results obtained, especially in certain cities and towns of England, where the accurate keeping of

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records of vital statistics for many years renders possible the comparison of conditions at different periods.[1]

It is a matter of the highest importance that the school life of our children shall be conducted under the most favorable auspices possible as regards matters of hygiene. During the years of school life the child and youth is most susceptible to physical as well as moral influences. The hygienic or unwholesome surroundings of the school-boy or girl determines to a large extent the health and vigor of the adult, and in no slight degree fixes the duration of that life.

The thought that is first suggested by the word school is that of a place in which instruction is received and mental discipline acquired. And yet, the old Latin motto, *Mens sana in corpore sano*, recurs to mind, and the experience of the ages shows that only in a sound body can we have a thoroughly sound mind, only as healthful conditions are supplied for the body can satisfactory results be obtained in regard to instruction or discipline; only as the body is enabled to develop naturally can the mind work safely; and therefore, in these days we are asking and shall demand of school directors or trustees and boards of education that the buildings in which so large a share of the time of our growing children is spent, shall be arranged with due consideration of all the essentials for healthful living, of teachers that they shall watch over the needs of the growing body while they instruct and train the mind. And we realize the responsibility that pon parents as well as upon teachers and trustees to acquaint ourselves with the principles which lie at the foundation of healthy living in school as well as out of it.

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1. As an illustration we may note a comparison made by Greenhow of the mortality in London during decades in the seventeenth, eighteenth and nineteenth centuries, quoted in *Sanitary News*, Sept. 26, 1885.

Years.	Approximate population.	Mortality per 1,000 per annum.
1681-1690.	530,000.	42.
1746-1755.	650,000.	36.
1846-1855.	2,300,000.	25.

The average duration of life was in the 17th century, 23.8 years; in the 18th century, 27.8 years; in the 19th century, 49.0 years.

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The School House.

In order that the school life of our children may be wholesome, the school house itself must be so situated and so constructed and arranged as to provide for hygienic conditions as regards drainage, ventilation and heating, light and seating.

Situation.

The site of a school-house should be dry, never in a low, swampy, wet place.

Water in the soil is injurious to the health by the effects of dampness simply as such, by favoring the decomposition of organic matters in the soil and the evolution of unhealthy effluvia, and by the effect of the ground water itself through its liability to become polluted, in which case it is dangerous to health, especially when it is the source of supply of water in wells or springs used for drinking purposes. (Bucke's Hygiene and Public Health. Vol. I., p. 413.)

The importance of having school-houses as well as dwellings stand upon dry and thoroughly drained soil is, I think, too little considered, even by many who consider themselves advanced sanitarians. The school-house should stand upon sloping ground, not upon a hill so high as to render it difficult of access to the little children, but with slope sufficient to carry off the water speedily, and so as to render easily possible the use of a common tile subsoil drain to dry the soil, if the natural drainage is insufficient. If the soil cannot be rendered dry by draining, another site should be chosen where this objection will not exist. An incline towards the south is the most favorable, toward the north the least so, but even this is far preferable to a site in a depression toward which the ground slopes from all around, and where the ground and air are continually damp.

In country districts, the immediate vicinity of a deep stream or lake would be objectionable by reason of danger to the younger children from drowning.

So also a situation adjacent to ponds of stagnant water or to marshy fields is objectionable on account of miasmatic influences which would endanger the health of teacher and scholars.

A danger which is possible, though not one often incurred, is

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that of having a school-house too densely shaded by overhanging trees, causing dampness and cutting off the sunlight, which should shine into every room of a school building during some part of the day. A much more common difficulty in cities is the too close proximity of high buildings, interfering with proper lighting and ventilation.

In cities the neighborhood of noisy manufactories or machine shops or mills, or of stables or other establishments emitting offensive odors should be avoided, the former on account of the necessary interference with the work of the school, as well as the possible danger of a prejudicial effect upon the hearing of the children, the latter on account of the injurious effect of foul and offensive odors upon the general health of the pupils.

DRAINAGE.

In country schools, the objects of drainage are effected when so arranged as to render the site of the school-building dry and to favor the rapid removal of surface water when rains occur; but in towns and cities where there are more or less extended systems of sewerage, it is a matter of importance that an intelligent supervision should be exercised over the plumbing of the school-house.

The objects of the plumbing of a building are two:
First, to introduce into the building and to distribute as conveniently as may be the water from a public or private supply;
Second, to remove promptly and without offence soiled or slop water and other waste, as from water-closets or urinals, while at the same time preventing the return through the same pipes of sewer-gas or air tainted with offensive or unwholesome products of decomposition of such waste matter.

That danger from the effects of sewer-gas is real and not imaginary is now generally admitted. That the danger is to be avoided chiefly by a proper arrangement of traps and by providing efficient ventilation of waste pipes and water-closets is also admitted. But when we go further into details and ask just what arrangement of traps, and what provision for ventilation, and what forms of apparatus are best adapted to secure the desired end, we do not find the same degree of unanimity.

ew general principles are however well established. (1) The

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pipes, traps and all the plumbing should be uninclosed by wooden casings, and be in full view, so as to afford no hidden depositories for filth of any sort. (2) The plumbing should be as simple and uncomplicated as possible. The old pan water-closet fixtures should be utterly discarded as a sanitary abomination and only the simpler "hopper closets" or other improved closets be allowed. (4) Ventilation should be provided by having the main soil pipe carried up in a line as nearly perpendicular as possible through the roof to a point higher than the windows of any part of the building, or of any adjoining building. An air inlet pipe should admit fresh air into the drain pipe at some point on the house side of the trap, which should be introduced between the house and the sewer. In order to secure perfect ventilation, a gas jet or lamp may be so placed in connection with the ventilating flue as to cause a current of heated air to ascend and carry up with it the foul gases. Water closets should always be so placed as to have light and air from out doors.

Where it is deemed not best to have water-closets, but privy vaults instead, if an adequate sewerage system is provided, the sewers skould be utilized for the constant removal of all the excreta; and if privy vaults are used, they should be so arranged as to be constantly flushed out by the waste water from the building. No less than four closets should be supplied for each hundred scholars.

In cases where there is no adequate sewerage system. it is necessary that the privies should be attended to more carefully and intelligently than is often the case.

In a "Sanitary Survey of School-Houses in Indiana", presented to the A. P. H. A., at the St. Louis meeting, by Dr. E. S. Elder, Sec'y. Ind. S. B. of H., it is stated that in that state "20 per cent of the school-houses have no water-closets, and that where they have them 40 per cent are in bad repair; that 70 per cent of these closets have no vaults, and that 85 per cent of the vaults were never cleaned or disinfected. Many of the closets wore filthy and unfit for use. In several of the vaults there were dead animals, a sheep in one, several dogs, cats, etc., in others." He we l says: "It is a standing reproach upon our civilization that school children should be compelled to attend to the calls of nature under the most painful embarrassment of having no more

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provision made for privacy than is given the brutes of the field; or that a pure, neat, clean, innocent girl should have to go into a revolting, filthy, nauseous water-closet, or sacrifice her modesty, or neglect these duties to the peril of her health. We cannot too strongly condemn such a condition of affairs as alike detrimental to health, morals and delicacy. A few pounds of sulphate of iron and a few minutes work semi-weekly, would keep the water-closets of school-houses from becoming a revolting nuisance or a source of ill-health.

Entirely separate accommodations in unconnected buildings should be provided for the two sexes; and certainly for the girls and little children there should be a dry sheltered approach to the building, not only for the sake of appearance and modesty but as a protection in cold and wet weather.

One point in regard to the structure of the privy, which has not been mentioned by others, is that the lower part of the building should be set close to the ground so as to protect the girls from unnecessary exposure in cold and stormy weather. I have known cases of severest dysmenorrhea which seemed to be due solely to the exposure of young women to the stinging blasts of a cold winter's day, when attending to the calls of nature in an improperly constructed school-house privy. Ample provision for ventilation can be made without leaving the whole building open to the wind.

Provision should be made for the frequent cleaning and disinfection of school privies. A few pounds of sulphate of iron dissolved and thrown into the vault once or twice a week, will efficiently deodorize its contents which should, o ever, be thoroughly cleaned out once or twice each year. In large schools, both in the interest of decency and morality, one of the teachers or a monitor from among the older scholars should be on duty near the closets to see that propriety is not violated. In towns where there is an abundant water supply, there is decided advantage in having water-closets on the second floor for the pupils on that floor, and when properly constructed and properly kept, they are entirely free from nuisance, and are desirable, especially on the girl's side of the building, thus avoiding the unnecessary burden of going down stairs and returning, and exposure to the weather as well. It would be still better to have such accommodations provided in a detached tower, connected by a covered way with the main building.

[TO BE CONTINUED.]

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CASES FROM PRACTICE.

EXSECTION OF HEAD OF FEMUR IN HIP-JOINT DISEASE.

By G. W. Holcomb, M. D., Clinton, Mo.

It is not my purpose in this report, to say anything as to the pathology or treatment of hip-disease, but to add what little weight of testimony these cases may carry, in favor of excision in the third stage of that disease. I fail to see any anatomical or statistical reason why the same surgical principles which guide us in the treatment of caries and necrosis in other bones, should not obtain in all cases of hip-joint disease in the third stage. I take it that when these cases come to us with sinuses about the joint, and a history of suppuration, and the occasional discharge of small fragments of bone, and other signs of serious bone trouble, surgical science offers us nothing equal to excision of all diseased bone, let it be much or little.

Case I.—E. S., a girl 13 or 14 years old, came under my care some years since, with this history. Six or seven years previous, while romping at school, as she expressed it, she strained her hip. An acute inflammation and fever of two or three weeks duration followed the hurt. Some three months afterward, fistulous openings appeared, and have continued ever since in various places about the hip. A great many fragments of bone passed at intervals; at times general health good, at other times bad. Present condition fairly good, leg three or four inches short, toes slightly turned in, trochanter major indistinctly felt, one sinus on outer side of thigh about four inches below joint, another in gluteal region, no diseased bone could be felt with probe, back and forward motion good.

I made a cut about six inches long, as nearly over trochanter major as possible, in a line with femur going straight to the bone. I found the head and most of the neck of femur gone, upper part

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of the femur including trochanter major was a mere shell, cancellous tissue all destroyed by caries. I separated muscles and other tissues from the femur as low as trochanter minor, keeping knife close to the bone. I then sawed off the femur at the level of the trochanter minor. As an after treatment, I packed some lint in the wound, made extension by means of a smoothing-iron attached to the foot by adhesive straps. I kept the leg straight by salt bags laid on either side, no fever of any moment followed the operation. The wound was dressed once or twice daily. In about three weeks the cut had healed. This patient had a good leg, and could walk well with the aid of a cane and high shoe. She was in good health when last heard from something more than one year after the operation.

CASE II was a mulatto girl about seven years old. She had had no known injury, could not get a satisfactory history of the case. Abscesses at hip-joint had been running five or six months. This was about all the girl's mother knew of the case. I operated in this case in substantially the same way as in No. I; found carious spots about head and neck of femur; cancellous tissue of neck was soft and easily penetrated by the probe. I passed a strong cord around the neck of the femur as closely as possible to the acetabulum, and made extension on the foot, when the head of the femur was easily lifted from the acetabulum by the cord. The head of the femur was then turned out through the wound and sawed off below the trochanter major. Same dressings as in the other case. I visited patient next morning and found her sitting up in bed with weight drawn up in the bed, the wound gaping open, and the end of femur close to acetabulum. I made extension again, reapplied weight, sand bags, etc. At next visit, I found same state of affairs as before, and could not get the girl's mother to understand or do anything right, so I let her sit up or lie down, or do as she pleased. I told the parents they must abide the results. Nevertheless this child got well, with a stiff hip-joint however, with thigh projecting in front almost at a right angle with the pelvis. I am sure if it had been possible to keep up extension for two or three weeks until cicatricial tissue had formed between the acetabulum and end of femur, this child would have had a good leg.

CASE III.—A scrofulous boy about thirteen or fourteen years old was operated upon by me on the first day of Dec. last. His trouble began about one year previous to operation. Sinuses had existed

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six months, one on outer side of thigh and one in the gluteal fold of right hip. Also fistulous opening at upper part of right humerus, which led to carious bone, upper part of left ulna was enlarged and carious, operation and after treatment same as other cases. In this case bone waste had gone on very rapidly, neck of femur was entirely gone, the circular part of head was lying loose in acetabulum entirely denuded of cartilage; trochanter minor had separated from shaft, trochanter major was turned out and drawn upon the the dorsum of ilium and firmly tied by adhesions. I cut through the trochanter major with chisel to facilitate removal, pushed end of bone through the wound and sawed it off an inch or so below the trochanter minor. This boy's wound healed readily, in fact too fast, he had some trouble with secondary abscesses, caused by fragments of bone, which I failed to remove in operation. Still his hip was permanently cured, he has a useful leg and can walk well with one crutch. I think he will in time, walk by the aid of a cane. In April last, I also resected this boy's elbow joint, removing five inches of the ulna and two inches of the radius, from which he made a good recovery with a useful arm.

CYST OF THE THORACIC DUCT.

By N. B. Carson, M. D., St. Louis.

Case reported to St. Louis Medico-Chirurgical Society, Sept 7, 1886.

The specimen which I present for your consideration tonight, is one of more than ordinary interest, on account of its rarity. It was taken last Sunday a week from a patient that came to my office to consult me concerning a tumor of the abdomen, which he said gave him no trouble or pain, except by its weight. He was a man of medium height, slight build, and apparently in perfect health. He gave his age as 38 years, his occupation, a manufacturer. Family history good. Had always enjoyed excellent health except in the hot weather, when he lost in flesh somewhat. About five months before he came to me, he stated that he began to feel a fulness in the abdomen, accompanied by a heavy dragging sensation. About the same time he noticed the tumor which was then nearly as large as an orange, and situated just below the umbilicus.

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It had been steadily increasing until I saw him. At that time it was as large as an adult hand, perfectly symmetrical and movable. By firm pressure the fingers could be readily pushed around it in all directions. Through the rectum the lower margin could be felt smooth and round. It appeared to have its origin from the spine about the second lumbar vertebra. After a careful examination I came to the conclusion that it was a cyst of the mesentery. As to its exact character I was uncertain, and therefore asked the patient's permission to aspirate, in order to perfect the diagnosis. This he readily assented to,and the result was a pint or more of what has been pronounced by all that have examined it,pure,unadulterated chyle. At this time the patient is well nourished and in good health. He said that in the hot weather he had lost flesh and felt debilitated, but as that was always so in the heat of summer, he had not even given it a thought. His brother, however, told me that he (the patient) had lost more in weight during the past summer than usual, and that he was not as robust as he had been in the past.

In looking up the literature on the subject, nowhere can I find the mention of a tumor similar to this; nor can I find among those that I have consulted, one who has ever seen or heard of such a cyst. I take the tumor to be a cyst of the thoracic duct. I arrive at this conclusion by exclusion.

Todd found several cases where the upper end of the duct presented the appearance of an aneurismal enlargement. (Holmes' Surgery, Vol. II, p. 451.)

Cooper saw a case of tumor of the thoracic duct, but this was filled with pus, and was supposed to be cancerous, as the testicle and abdominal glands were involved in a like condition. (Holmes' Surgery, Vol. II, p. 452.

M. Andral,fils, found the duct in a phthisical patient dilated into a sac, from the diaphragm to the body of the fifth dorsal vertebra, and filled with pus. (Holmes' Surgery, Vol. II, p. 452.)

From these cases we can infer that the thoracic duct is capable of dilatation, and if, from some cause or other, the flow of chyle is interrupted, the vessel might dilate and form a sac as large as the one from which this fluid came.

The nourishment of the body might still be effected by anastomosis.

On the other hand, one or more of the coats of the duct might be

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torn or ulcerated and a dilatation result, just as we have aneurisms formed. After a while, this opening leading into the cavity might be occluded from some cause or other, and the sac and its contents isolated. This to my mind is the most probable explanation of the formation of this cyst. While many cases of chylous dropsy of both the abdominal and pleural cavities are reported, nowhere can I find mentioned a case of encysted chyle.

As to treatment, in my opinion none is required, for if a permanent fistula is established and the sac still connected with the duct, the drain will exhaust the patient and thus cause his death.

A CASE OF ELECTRICAL SHOCK.

By Dr. A. B. Robert, El Paso, Texas.

Aug. 11, 1886, at 7 P. M., I was called in to see Mr. W. M. R., aet. 28, single and previously of excellent health, who had received a severe shock from a "blind" wire connected with the central telephone office. Reaction was slowly taking place, with the entire muscular system in clonic convulsions. Pulsations in right arm rapid and of very low tension, not perceptible in left. Temperature 97° F., respiration 50; slight precordial pain. No cerebral symptoms.

Gave spts. vini Gallici hypodermically every fifteen minutes till reaction had taken place.

At 8 P. M. convulsions limited to left upper and right lower extremities. I called in Dr. J. A. McKinney, and we gave of morphia sulphate one-half grain every hour till sleep, which was after the third dose. There were severe neuralgic pains at this time extending from spinal column down the left arm.

Aug. 12. 7 A. M. Temperature, 99½°; respiration, 40; pulsations, 100, full and more regular. Slept well during the night, but at no time did the convulsion of left arm cease, while that of the right lower extremity ceased during the night. Slight inertia of bladder.

Continued the morphia at longer intervals, and used sinapisms, alternating with cold packs, to the spinal column.

12 A. M. Respiration, 40; temperature, 99¼°; pulsations normal. Neuralgia still severe, but less often. Continued the treatment of the morning.

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7 P. M. Respiration, 35; temperature, 99°; pulsation normal. Convulsions of arm considerably lessened in severity.

Prescribed chloral hydrate, grains, twenty-four; potassium bromide, grains twenty, every two hours till sleep.

Aug. 13. 7 A. M. Temperature, respiration and pulsation normal. Slept well during night. Inertia of bladder has almost disappeared. Convulsions limited to muscles of forearm. Gave saline laxative, and of fluid extract of ergot one dram every three hours.

Aug. 14. 7 A. M. Patient sitting up and complains only of general malaise. Only slight tremor of the left hand which entirely disappeared on the following day.

In conclusion I will state that the convulsions of the left arm were not merely tremors but a jactitation, which described a fourth of a circle at intervals of only one or two seconds during the three days. Any impediment that would interfere with this jactitation would produce excruciating pain, and prevented an exact measurement of motor and sensory disturbance.

INFLUENCE OF SEWAGE.—The importance of providing for the exclusion from the rivers of sewage and foul drainage water of any kind lies not merely in the direct consequent reduction in the amount of impurities in the water people drink, but to a much greater extent in reducing the chance of the living germs of noxious organisms finding their way into the water, there to be nourished by and render dangerous *dead* organic matter which of itself might be harmless enough. In the event of such an epidemic as one of cholera gaining but a first foothold in some parts of the city, this consideration would at once acquire a degree of importance scarcely to be overestimated.—*Rept. on Water Supply, Phil. Water Dept. Ann. Rep.* '85.

A NEW SIGN OF DEATH.—M. Lessenue states that if a pin be thrust into the body of one supposed to be deceased, the appearance of the pinhole left on withdrawing the pin will determine the accuracy of the supposition. If the person is dead, the hole remains open as when a pin is stuck into leather. If the person is alive, the skin contracts and the pin-hole entirely disappears.

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EDITORIAL.

CALOMEL AS A DIURETIC.

Attention has lately been called to the diuretic effect of calomel in the treatment of certain cases of cardiac dropsy. In the July 10, issue of *Wiener Medicinische Wochenschrift* Prof. Stiller, of Buda-Pest gives a detailed report of eighteen cases of cardiac dropsy, occurring in hospital and private practice, which he had treated by the administration of calomel according to the method of Jendrassik. The latter obtained more striking effects in the way of immense increase of urinary secretion, but Stiller's results as to effect upon the patients were fully equal to Jendrassik's. Certainly the cases reported demonstrate fully the great value of calomel in the treatment of this class of cases. Intense edema of the extremities, and peritoneal and pleural effusions disappeared under the administration of calomel; while enlarged and congested livers were reduced in size and the attending dyspnea was relieved. And all this took place in cases in which digitalis had utterly failed to relieve or had caused unfavorable symptoms necessitating a discontinuance of it use.

As the result of these observations, Dr. Stiller thinks, that in cases of cardiac dropsy, the most efficient and rapid means of relief is found in the administration of small doses of calomel.

The diuretic action was found by both of the observers mentioned to occur suddenly on the third or fourth day after the commencement of the administration of the drug. On the appearance of this effect the administration of the drug should be discontinued, to be renewed in considerably decreased doses when the diuretic action notably diminishes. Dr. Stiller found that the administration

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of opium with the calomel entirely prevented the tendency to cause diarrhea which complicated some of the earlier cases, while it in no way interfered with the diuretic action.

Referring to these favorable reports, however, the *Therapeutic Gazette*, Sept. 1886, observes that calomel cannot by any means be regarded as a substitute for digitalis, inasmuch as it is in no sense, a heart remedy. In the large class of cases in which digitalis fails or is contra-indicated, and where none of the various substitutes that have been recommended for digitalis are available, the results referred to above indicate the great value of calomel. The exact indications for use and the full effect that is to be expected from it, that journal well says, are yet to be determined.

CALOMEL TREATMENT OF DIPHTHERIA.

In a paper read before the American Laryngological Association, at its eighth annual meeting and published in the *New York Medical Journal*, Sept. 11, 1886. Dr. Wm. H. Daly appears as a warm advocate of the calomel treatment of diphtheria. Without discussing at all the questions of etiology and pathology, he simply states the conclusions to which he has been led by personal observation and experience. He gives the credit of suggesting and advocating this treatment primarily to Dr. Hamilton, of Edinburgh, in the last century, and more recently to Dr. W. C. Reiter, of Pittsburgh, whose "Monograph on the Treatment of Diphtheria," was published by J. B. Lippincott, in 1878.

The rules which he lays down for treatment of the disease are: 1. Give calomel in its purity. 2. Give it in large doses. 3. Give it frequently. 4. Give it until you have the free and characteristic catharsis. 5. Give light nutritious diet. 6. Give little or no other medicine.

To a child three or four years old, he would give pure calomel, untriturated or unmixed with sugar, two to five grains every one,

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two or three hours, either dry on the tongue, and washed down with a little ice-water, or floated on a little ice-water in a spoon. This is repeated until free catharsis is produced, the stools being carefully watched. When these assume the appearance of having floating in them gelatinous masses of dark, rather brightish green bile, the "chopped spinach" appearance, the intervals between the doses can be lengthened, but this character of catharsis to the extent of one to three stools a day should be maintained. He finds it better to lengthen the interval between doses rather than to diminish the dose of the remedy, as being less liable to cause ptyalism. Under this mode of treatment depression is very slight, and ptyalism is infrequent, if the precaution of maintaining the catharsis is observed. "The membrane exfoliates and reforms, if at all, with less and less readiness; the fever abates; the prostration is slowly replaced by brightness and a disposition to activity, which latter should, of course, be prohibited, lest heart paralysis or syncope should suddenly supervene and cause a suddenly fatal termination to the otherwise favorably progressing case."

In the discussion which followed the reading of this paper it seemed that most of the fellows of the Association were unwilling to accept this as being the best mode of treatment of diphtheria.

Dr. Shurley recognized the value of calomel in the treatment of croupous inflammation, but did "not believe that any positive reliance can be placed upon the use of calomel in the treatment of ordinarily severe cases of diphtheria."

Dr. Frank Donaldson thought that if any mercurial would be effective in the treatment of diphtheria, it would rather be the corrosive chloride, which he regarded as certainly the best local application. He is disposed to depend largely upon nourishing food and alcoholic stimulants repeated at brief intervals.

Dr. S. Johnston cited a case in which he had used trypsin as a local application with the most satisfactory results.

Dr. Beverly Robinson regarded mercurials as of very little value

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in this disease, while Dr. Bosworth thought it very efficacious in croup, though having little or no influence upon the true diphtheritic process.

Dr. Mackenzie regarded alcohol as the sheet anchor in treating diphtheria.

Dr. Daly said in closing the discussion, that he had not expected any more favorable acceptance of his paper. His own confidence in this treatment had been slight at first, but observation and trial of all the commonly advocated plans of treatment had been so disappointing that he had been driven to try this, and he had been much gratified at the success he had therewith obtained. He could only urge upon others a trial of it.

MANAGEMENT OF TYPHOID FEVER.

Dr. F. Peyre Porcher describes in the *New Orleans Medical and Surgical Journal*, Sept., 1886, his plan of treating typhoid fever.

In addition to the keeping up of the nutrition of the patient by suitable food, and supporting by stimulants, he regards it as a matter of great importance to control the temperature which he does by the following means:

1. A soft towel folded is soaked in a basin of iced water, then wrung out and applied over the forehead and temples.

2. The palm of one hand and the arm are "sponged off" with another towel which has been dipped in the cold water and wrung out.

3. The towel which has been left upon the head is turned and reapplied, so as to have the cold surface next the skin.

4. The other hand and arm are treated as was the first.

This process, strictly followed, is continued for fifteen to thirty minutes, or until such time as the surfaces treated have become thoroughly cooled, and should be repeated whenever there is a rise of the surface heat. Sometimes, if it does not cause fatigue, both hands and arms, if hot and dry, are allowed to be immersed or to be bathed directly in the cold water.

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This mode of using cold water, he has found efficient and valuable in the treatment of various forms of fever in which the hyperpyrexia was of such a degree as to be regarded an element of danger.

The next most important auxiliary, and one that he regards as essential in every form of fever, is what he calls the "fever mixture", which is composed as follows, though the different ingredients may be varied to suit the case.

℞ Spts. etheris nitrosi, - - - - - ℥ss.
Potass. acetatis, - - - - - ʒi–ij.
Potass. chloratis, - - - - - - ʒj.
Liq. ammon. acetatis, - - - - - ℥j.
Tr. aconiti, - - - - - - - ℥ss.
Tr. opii camph, - - - - - ʒij–iij.
Aquæ, q. s. ad - - - - - - - ℥iv.

M. Sig. Dessertspoonful every two or three hours as long as there is fever.

Potassium bromide or morphia may be added if there is great restlessness and insomnia.

Following the recommendation and experience of Dr. L. Kestiven, of Queensland, as recorded in the *Practitioner*, he has in his latest cases given the following formula in alternation with the "fever mixture" already given.

℞ Olei eucalypti, - - - - - - - ʒv.
Spts. ammon. arom.,
Spts. chloroformi,
Glycerini, - - - - - - aa ℥ij

M. Sig. Teaspoonful every four hours.

Dr. Porcher generally gives tonic doses (two grains three times a day). This has also an antiseptic influence he thinks. The quinine was generally associated after the first week with aromatic sulphuric or nitro-hydrochloric acid in ten-drop doses, in view of the special applicability of acids in this disease when it has made some progress.

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In the later stages, characterized by dry tongue and sordes with low muttering delirium, he says that stimulants should be administered *very freely* together with the application of revulsives (emplastrum cantharidis) to the back of the neck where cerebral complications, delirium, etc., are marked. *As long as the tongue is dry* he would give almost unlimited discretionary powers to attendants and nurses to continue stimulants. He thinks this positive indication has been too little regarded.

He further refers to some remedial agents which are valuable in the complications which arise in this disease.

Oil of turpentine is applicable to meet four separate morbid conditions.

1. Tympanitic distention resulting from perverted conditions of the mucous and secretory surfaces of the intestinal tract.

2. As a special stimulant at the stage of general depression.

3. As an astringent or styptic with opium to prevent or arrest hemorrhages from the intestines, kidneys or bladder.

4. Combined by means of mucilage with the carbonate and chloride of ammonium to relieve the irritation or inflammation of the bronchial tubes when these are affected.

When the later stage of the disease is complicated with severe broncho-pneumonia, the following formula has given him satisfactory results:

℞	Vin. ipecac.,	℥j.
	Ammonii carb.,	℥ij.
	Ammonii chloridi,	℥iij.
	Syr. simplicis,	℥j.
	Aquæ, q. s. ad	℥vj.

M. Sig. Dessertspoonful every two hours in a wineglassful of water.

Cotton batting over the whole chest, covered with an oil-silk jacket, he has found most valuable additional means in treating broncho-pneumonia.

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For the albuminuria which sometimes occurs, he gives three times a day two grains each of gallic acid and quinine.

For nausea and vomiting he finds most efficient drop doses of wine of ipecac frequently repeated, or the following:

℞ Acidi carbolici, - - - - - - - gtt.j.
Glycerinæ, - - - - - - - - ʒj.
Tr. opii camph.,
Ess. menth. pip.,
Chloroformi pur., - - - - - aa. gtt.v.
M. Sig. In mucilag. acaciæ q. s. and repeat.

Dr. Porcher claims that under this plan of treatment which he has pursued for a number of years, the mortality from typhoid fever in his clientele has been only two to three per cent, a record which is certainly a most emphatic endorsement of his treatment.

RADICAL OPERATION FOR REDUCIBLE HERNIAS.

MM. Ivar Svensson and Thor. Erdmann, surgeons of hospital of Sabbatsberg, report the results of one hundred and six radical operations for the cure of reducible hernias.

For a few years all the hernias admitted at Sabbatsberg were treated by injections, and that with quite good results. Now this method has been completely replaced by the bloody operation, with extirpation of the hernial sac after ligature of this, a method which has been shown at the hospital as exempt as the other from danger to life, but much more certain as regards complete restoration of health. Since the opening of the hospital of Sabbatsberg, about six and a half years ago, nearly three hundred hernias have been treated, and about two hundred have undergone the bloody operation. Among these one hundred and sixteen were reducible hernias, and it is to the consideration of one hundred and six of these that they devote a memoir published in the *Nordiskt Medicinskt Arkiv*, second part, 1886.

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The success attending the operation at Sabbatsberg was unexampled, inasmuch as there was not a single fatal case as the result the operation, and that, too, without any selection of the cases. In fact there were some very large hernias, some subjects not at all fit for the operation, old and almost decrepit persons, and such complications as adhesions of the hernial sac with its contents whether intestine or epiploon. In some cases the hernias were so enlarged that they extended to within two or three inches of the knee-joint. Nine were as large as ostrich eggs; ten as large as an infant's head, or even larger. As to duration of the hernias, forty-four dated from a few months to five years, sixty-two from five to thirty years. Concerning the ages of the patients, there was not one under five years of age, forty-one were between five and thirty years old, sixty-five more than thirty, and of these last twenty-four were between fifty and sixty years old.

Serious accidents very naturally occurred from time to time after the operation, especially at the commencement, before experience had taught the best course to follow during and after the operation.

Lister's dressing, abandoned at the hospital since the summer of 1882, has been replaced by iodoform and boric acid gauze. Iodoform, mixed with two thirds of boric acid is not put in contact with the wound itself, which is washed off with a sublimated solution. Phlegmons of the abdominal wall, hitherto quite frequent, have become much more rare since the use of iodoform. In general there has been total absence of fever after the operation; sometimes there has been a slight elevation of the temperature during the days immediately following the operation. A woman, æt. 59, operated upon for reducible hernia, did indeed die in the hospital, but the operation wound had entirely healed, and her death had no relation to the operation, as was shown by the autopsy. The danger of this operation at Sabbatsberg has been found to be no greater than that of every other operation in any degree comparable to it.

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Next to the question of mortality of the operation doubtless the next most interesting one is that concerning relapses, and in this particular also most extraordinary results have been obtained at Sabbatsberg. As to this point only those cases are considered in which at least six months have elapsed since the operation. Of forty-eight hernias operated upon at the hospital which had been seen at intervals varying from six months to three and a half years after the operation, in only ten, or a little more than 20 per cent, had hernias appeared again, while thirty-eight, or 80 per cent, were entirely free from any return. These results are the more striking if it be taken into account that, on the one hand, these cases are taken without any selection, and on the other that a large part of those operated upon were of the lower classes, negligent of themselves in every particular, not even taking the trouble to take the bandages with which they were furnished gratuitously on leaving the hospital. As confidence in the operation increases, and as persons of the better classes, anxious to take care of themselves, desire the operation, there is reason to hope for even better results as to relapses. But even in cases where the hernia has returned sooner or later after operation, this has not been useless; for hernias, formerly irreducible, have been reduced, and patients who, by reason of their hernias which a truss would not retain, have been prevented from walking about or working, have been enabled again to walk or engage in their usual employments. All of the forty-eight former patients whom the author had succeeded in seeing, as mentioned above, without exception asserted that they had been greatly benefited.

The operation is performed at Sabbatsberg ordinarily in such a fashion that a ligature is applied as high as possible around the neck of the hernia, after which the hernial sac itself is extirpated beneath the ligature. Almost always the hernial sac is opened and its contents explored; according to what one finds, it is returned or extirpated. In congenital hernias, where the hernial sac is formed by the vaginal sac of the peritoneum still open, only the upper

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part of the sac is extirpated; and in cases where the large intestine has been drawn into the hernia and adheres to the wall of the sac, that, after having been wholly separated from the surrounding tissues, is returned with the large intestine, after which the pillars of Poupart's ligament are united by sutures.

The results which these surgeons have attained certainly commend their operation to the profession.

THE ANATOMY ACT.

In the last number of the COURIER reference was made to the action of the Missouri State Medical Association endorsing a movement on part of the profession to secure the passage of a more practicable anatomy act than the one now in operation. Illinois has lately passed a statute similar to one of Pennsylvania, granting all that could be desired to the anatomist. In view of the fierce competition between the states in every deprrtment of activity, it is obvious that our medical schools must suffer unless legislation interfere to give the Missourians equal privileges. This consideration alone should enlist the active support for the movement of every physician in the state, and this is particularly sought. If every one will present the matter fully to the representative of his district in the coming legislative body, and secure his positive support before he leaves for Jefferson City, the passage of the act will be evidently guaranteed. Let no man think his advocacy will be of no special value; what does not secure individual support, naturally will have no support at all. It must be borne in mind, also, that each doctor is relatively equally interested with the schools, since the proposed statute provides material for practitioners as well as for students, so that they may rehearse operations at their own homes, or refresh anatomical knowledge at will.

The State Medical Directory has been used as a reference, and copies of the proposed Anatomy Act have been mailed to every

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physician's address therein listed. Very likely by reason of removals, recent entrance into practice, etc., etc., some may not receive copies, such are requested to send for copies. It is intended, as far as possible, to provide the secretaries of all local societies with copies for distribution: the members of the committee appointed in May by the State Medical Association, to push the statute, will be able to answer all requests. This committee consists of Drs. W. A. McCandless, St. Louis; J. D. Griffith, E. R. Lewis, Kansas City; J. W. Heddens, St. Joseph.

In the last COURIER, p. 366, the desired statute appears in full.

Information and copies of the proposed statute can be obtained also from the professors or demonstrators of anatomy of any of the medical colleges of the state.

THE LATEST ANTIPYRETIC—ANTIFEBRIN.

Still another agent for the reduction of febrile temperatures has now been brought to the notice of the medical profession. Drs. A. Cahn and P. Hepp, assistants at Kussmaul's clinic, in Strassburg, have experimented with, and now recommend as an antipyretic,a chemical principle known as acetanilide or phenylacetamide, the formula of which may be written $C_6 H_5 N H C_2 H_3 O$, or $C_6 H_5 N (C_2 H_3 O)$. $H=C_8 H_9 N O$.

In appearance the new agent is a white, crystalline, odorless powder, producing a slight burning sensation when placed on the tongue, almost insoluble in cold water, more readily soluble in hot water and freely so in alcoholic liquids, including wine. It melts at 113° and boils without decomposition or change at 292°. It has neither acid nor basic properties, and is indifferent to most reagents. Chemically it resembles aniline but was not found to cause poisonous effects upon dogs or rabbits, nor to influence noticeably their temperature.

Clinical experiments in eight cases of typhoid fever, five of ery-

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sipelas, two of acute rheumatism, four of phthisis, and one each of abscess of lungs, leucemia, pyemia, septicemia and ambulant pneumonia have led the gentlemen who present its claims in *Centralblatt f. klinische Medicin*, Aug. 14, to regard it as a more effective antipyretic than antipyrine, four grains of the new agent producing the same effect as four times the amount of the latter agent.

The dose administered varied from four to fifteen grains, and not more than thirty grains were given in twenty-four hours.

Ordinarily the effect begins to be apparent within an hour, and the maximum is reached in about four hours and continues from three to ten hours according to the size of the dose, but usually from six to eight hours, provided the temperature has been brought down to or below the normal point. *Pari passu* with the fall of temperature the pulse rate is lowered.

No unpleasant effect upon the digestion has been observed, and in some cases the appetite returned during the intermission, and in some cases, as in the experiments on animals, the patients fell into a tranquil sleep during the remission.

The special advantages claimed for the new drug are its efficiency in comparatively small doses, the fact that it does not disturb the stomach, that the sweating which it produces is moderate, and that the drug is cheap.

SIGNATURES TO PRESCRIPTIONS.

The National Druggist, Sept. 17, very properly urges upon physicians that they sign the full name to their prescriptions instead of the simple initials.

Most physicians at times commit errors in writing their prescriptions, either by a failure to specify the quantity of some ingredient or by a palpable misstatement of the quantity of some potent drug. It is only a matter of self-protection, then, for the physician to give his name in full, so that the druggist may have no difficulty in

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identifying him and be able to consult him in regard to the matter, as most druggists are ready and glad to do.

Furthermore, the pharmacist is in duty bound to put his name and address upon every bottle or package of medicine which leaves his prescription case, and the same duty in reality rests upon every physician to assume responsibility for prescriptions written.

In cases where a physician is too indolent to write his name in full he should invariably use "blanks" with his name and address printed upon them, a practice which has much in its favor in all cases.

DR. MEADOWS' ADDRESS ON OBSTETRIC MEDICINE.

In the address delivered by Dr. Alfred Meadows, President of the Section of Obstetric Medicine of the British Medical Association, at the opening session of that section, are some vigorous words with regard to the operation of craniotomy. The eminent obstetrician says: "I have some confidence that if not in our day, at all events in the next generation, it will be regarded as almost as great a crime to thrust the perforator into the head of an unborn as of a born infant. The whole tendency of modern midwifery practice is in this direction. The conscience of the profession is being freshly awakened, and the heart of the practitioner is being stirred to revolt against an act which is, in one aspect at least, truly barbarous, and from which his whole moral nature shrinks." He takes the position "that we have not exhausted the resources of civilization until we have found out some means by which we may in every case of labor, with reasonable chances of maternal safety, extract a living and viable child from the mother who gives it life."

He approves of Porro's operation, especially in view of the fact that it ensures the mother against a repetition of the peril in which pregnancy places her, and fully agrees with Mr. Lawson Tait in his expressed preference of Porro's operation to craniotomy, as in

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the latter the child is inevitably destroyed, and in his opinion the mother runs as great a risk as in Porro's operation.

Referring to the operation of removal of the ovaries and Fallopian tubes, Dr. Meadows deprecates the introduction of so much bitterness and angry feeling into the discussion as at present prevails, recognizing that such acrimonious discussion retards rather than aids the determination of truth.

He states for himself that he fully believes in the sound and scientific basis upon which the operation is founded, and regards it as a valuable addition to our means of relieving patients suffering from certain ovarian and tubal diseases that are beyond the reach of therapeutic agencies, and even approves of its applicability in cases of nervous diseases which have resisted all attempts to cure them with drugs, even when no disease of the ovaries or tubes themselves can be detected, and also believes it available for the relief of some forms of uterine fibromata.

He raises the question also whether the operation should not be performed upon women who are the subject of such deformity as to preclude the birth *per vias naturales* of a living child, the operation itself being less dangerous than craniotomy or Porro's operation, and being in his judgment less objectionable from a moral aspect than the so-called safeguards to prevent conception.

At the same time he utters a word of caution against the too frequent or unnecessary performance of the operation before a fair trial of medical treatment, which he thinks there is a tendency not fairly to test.

Schools for the Insane.—In the Hudson River State Hospital for the insane, at Poughkeepsie, under the superintendence of Dr. J. M. Cleaveland, an experiment is being tried which is one of very great interest. A system of instruction, such as is given to pupils in an ordinary school, has been arranged, together with calisthenic exercises in which many of the patients have come to be much interested, even some who at first strongly resented the idea of going to school.

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BOOK REVIEWS AND NOTICES.

DISEASES OF THE LUNGS (of a Specific, not Tuberculous Nature). Acute Bronchitis, Infectious Pneumonia, Gangrene, Syphilis, Cancer and Hydatids of the Lungs. By Prof. GERMAIN SEE. Translated by E. P. HURD, M.D., etc., with appendices by GEO. M. STERNBERG, M.D,. and Prof. DUJARDIN-BEAUMETZ. *New York: Wm. Wood & Co.*, 1885. 8vo.; pp. 398; cloth. (Wood's Library.)

Prof. Sée has adopted and carried to their fullest extent the modern theories as to the dependence of disease upon the presence and influence of micro-organisms.

The clear and polished style of the brilliant French professor is admirably preserved by the translator, and the skill of the argument is such that one is almost convinced of its truth in spite of himself.

The appendix by Dr. Sternberg, reprinted from the *Am. Jour. of the Medical Sciences* for July, 1885, modifies some of the strong assertions and extravagant claims of the text, while Professor Dujardin-Beaumetz' appendix reviews the whole subject of modern bacteriology as now recognized.

The volume is both interesting and profitable, though it is not probable that the views advanced by Prof. Sée will be accepted in full by the profession.

PUERPERAL CONVALESCENCE and the Diseases of the Puerperal Period. By JOSEPH KUCHER, M. D. *New York: J. H. Vail & Co.* 12mo.; pp. 311; cloth. (St. Louis: J. H. Chambers & Co.)

Four years of service in the Vienna Lying-in-Hospital, have given the author of this little volume full opportunity to study "the views on the management of childbed, and upon the origin and treatment of the puerperal diseases as accepted and in practice" at that institution. To Semmelweiss is given full credit for the great reduction in the mortality in the lying-in wards of that hospital, and this volume is virtually an exposition for the English reader of the views of the eminent German obstetrician.

In the chapter devoted to post-partum hemorrhage he very prop-

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erly in our opinion gives the preference, as to therapeutic means, to external manipulation. He prefers hot to cold water as an injection to arrest hemorrhage, with which we should agree, but in the preference for an iron solution where it is necessary to use a stypic, we should differ with him, as a solution of iodine is manifestly superior to a solution of any of the iron salts for such use.

The chapter on Puerperal Fever is the most important one in the book; and while more recent observations do not accord with Semmelweiss' theory as regards the relation of diphtheria and erysipelas to puerperal fever, his practice has been most successful in preventing the occurrence of this fell disease. The book is worthy of careful study by student and practitioner. E. M. N.

A MANUAL OF SURGERY. In Treatises by Various Authors. In three volumes edited by FREDERICK TREVES, F. R. C. S., etc. Vol. I., General Surgical Affections, the Blood-Vessels, The Nerves, The Skin, pp. 576. Vol. II. The Thorax, the Organs of Digestion, The Genito-Urinary Organs, pp. 620. Vol. III. The Organs of Locomotion and of Special Sense, The Respiratory Passages, The Head, The Spine, pp. 648. Duodecimos, 213 engravings. Per volume, cloth, $2. *Philadelphia: Lea Brothers & Co.*, 1886.

These three volumes comprise about sixty treatises on various surgical subjects by thirty-three different authors, including some of the most distinguished of British surgeons.

No detailed descriptions of the methods of performing amputations, excisions, plastic operations and ligating arteries, are found here, though some of the special operations as tracheotomy, gastrostomy, herniotomy, etc., are given quite freely. Surgical pathology is discussed only so far as it affects the clinical aspect and treatment of surgical disease.

The first article on "The Process of Repair" by Mr. Chiene, of Edinburgh, contains an excellent account of the germ theory and the general principles of antiseptic surgery. Several short essays follow, and then a paper by Professor Stokes, of Dublin, on the General Principles of Operative Surgery, practical and concise, occupying only ten pages.

Mr. Hutchinson's paper on "Syphilis" will be read with interest as containing the formulated views of that eminent surgeon. In the third volume we may mention in particular Sir Wm. MacCormac's paper on Hernia, Mr. Pearce Gould's paper on Surgery of

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the Chest, and those of Mr. Morris on Injuries and Diseases of the Abdomen and of the Kidney.

The volumes are well printed on good paper and are very neatly bound.

TRANSACTIONS OF THE LOUISIANA STATE MEDICAL SOCIETY at its Eighth Annual Session held at New Iberia, La., Apr. 14, 15 and 16, 1886. *New Orleans, L. Graham & Son, Printers.* 8vo.; pp. 306, paper.

The Transactions of the Louisiana State Medical Society this year contain some papers of rather unusual value and merit. We notice in particular that by Dr. Rudolph Matas, on "Iliac Phlegmons; some Considerations of Anatomical and Surgical Interest," an admirable study of a most important subject. Dr. Joseph Jones' paper entitled "Observations and Practical Results of Medical Service in the Charity Hospital of New Orleans, La., 1869-1886," is another paper of more than usual interest. A number of well reported cases add interest to the volume.

By way of criticism we would suggest to the publication committee the necessity of greater care in proof-reading, as also probably in preparing manuscript for the printer, as the latter can hardly be expected to revise the Latin of prescriptions.

TRANSACTIONS OF THE MEDICAL SOCIETY OF THE STATE OF WEST VIRGINIA. Nineteenth Annual Session, held at Charleston, May 19 and 20, 1886.

A well printed report of the meeting of an active, well sustained society. One paper which specially attracted our attention is entitled the "The Plea of an Aggrieved Uterus," which combines with an amusing satire of modern gynecological practice, much of good sensible suggestion for the practitioner.

PROCEEDINGS OF THE NEBRASKA STATE MEDICAL SOCIETY. Seventeenth Annual Session, held at Grand Island, May 26-28, 1885. 8vo., pp., 385; cloth.

We must give the Nebraska State Medical Society credit for printing the handsomest volume of transactions that comes to us from any State Association. Much of the credit for this, as well as for the excellent work of the Society is due, we doubt not, to the good taste and judgment and energy of their efficient, permanent secretary, Dr. A. S. V. Mansfelde. This volume is a credit to the state both as to character of the papers and the presentation of them.

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EPILEPSY AND OTHER CHRONIC CONVULSIVE DISEASES. Their Causes, Symptoms and Treatment. By W. R. GOWERS, M. D., F. R. C. P. *New York: Wm. Wood & Co.*, 1885. 8vo.; pp. 250; cloth. (Wood's Library.)

In a class of affections, the pathology of which is still in dispute, everything depends on close observation of the clinical cases from all points of view. This Dr. Gowers has been enabled to do to a remarkable extent, aided by the large command of cases which his connection with the hospital for the paralyzed and epileptic gives him. Some of the facts of these cases and the conclusions which they suggest were described in the Gulstonian Lectures delivered before the Royal College of Physicians, of London, in 1880. A part of the other cases were published in medical journals, but the greatest part is here published for the first time, and all are systematically arranged. The exhaustive clinical histories of his cases enable him to present statistics on all points of interest in regard to this terrible affection, and the histories of some of these cases are not the least interesting part of the book.

The therapeutical remarks are very valuable, based on large experience.

The order of the text is arranged so as to discuss first, the etiology; second, symptoms, comprising one-fourth of the volume; third, epilepsy after hemiplegia; fourth, hysteroid or co-ordinated convulsions—hystero-epilepsy; fifth, course of disease; sixth, pathology; seventh, diagnosis; eighth, prognosis; ninth, treatment. To any one who wishes to familiarize himself with epilepsy in all its relations this book is heartily recommended. It constitutes one of the volumes of Wood's Library, and is printed and bound in the usual good style of the publishers. H. W. H.

AIDS TO MEDICINE—PART III (Double Part). Diseases of the Brain and Its Membranes, of the Nervous System, of the Spinal Cord and of the Ear. By C. E. ARMAND-SEMPLE. 16 mo.; pp. 112; paper, 35 cents.

AIDS TO GYNECOLOGY. BY ALFRED S. GUBB, L. R. C. P., etc. 16mo.; pp. 76; paper; 25 cents.

AIDS TO OBSTETRICS. (Double Part.) By SAMUEL WALL, B. A., M. B., etc. 16 mo.; pp. 142: paper; 35 cents.

AIDS TO SURGERY. By GEORGE BROWN, M. R. C. S., etc., 16mo; pp. 72; paper; 25 cents.
New York and London: Geo. P. Putnam's Sons, 1885.

These "Students Aids Series" volumes are simply outlines of the

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various subjects treated, and are in no sense to be regarded as "treatises." They are of service to the student in reviewing for examination, or to the practitioner for ready reference to recall the lessons learned from lectures or from more thorough works.

DIAGNOSIS OF DISEASES OF THE BRAIN AND SPINAL CORD. By W. R. GOWERS, M. D., F. R. C. P., etc. *New York. Wm. Wood & Co.*, 1885. 8vo.; pp. 293; cloth. (Wood's Library.)

Dr. Gower's work on Diagnosis of the Diseases of the Spinal Cord is already well known to the profession, and the accompanying lectures on Diseases of the Brain are a valuable addition to the literature of this important department of medical science. The work is written in a scientific spirit and will be a great assistance to student and practitioner in gaining a fuller appreciation of this class of diseases.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.—Electrolysis. By Robert Amory, A. M., M. D., New York, Wm. Wood & Co., 1886. 8vo.; pp. 314; cloth (Wood's Library).—Bright's Disease and Allied Affections of the Kidneys. By C. W. Purdy, M. D., etc. With new and original illustrations. Philadelphia, Lea Brothers & Co., 1886; 8vo.; pp. 295; cloth, $2.00.—Reference Handbook of the Medical Sciences. Edited by Albert H. Buck, M. D. Vol. III. Fac-Hys. New York. Wm. Wood & Co., 1886. 4to. pp. 813 cloth. (J. H. Chambers & Co.)—Rheumatism: Its Nature, its Pathology and its Successful Treatment. By I. J. Maclagan, M. D., New York. Wm. Wood & Co., 1886. 8vo.; pp. 277; cloth (Wood's Library).—Leisure Hour Series, Detroit, Geo. S. Davis, 1886. paper, price per set of 12, $2.50; single numbers 25 cents.—Inhalers, Inhalations and Inhalants. By Beverly Robinson, M. D.; pp. 72.—Use of Electricity in the Removal of Superfluous Hair and the Treatment of Various Facial Blemishes. By Geo. Henry Fox, M. D.; pp. 67.—New Medications, Part I. By Dujardin-Beaumetz, M. D. Trans. by E. P. Hurd, M. D., pp. 128. Part II. pp. 320.—The Modern Treatment of Ear Diseases. By Samuel Sexton, M. D., pp. 95.—Spinal Irritation. By William A. Hammond, M. D., pp. 80.—The Modern Treatment of Eczema. By Henry G. Piffard, M. D., pp. 54.

PAMPHLETS AND REPRINTS.—The Electric Light as an Illuminator. By J. Alfred Andrews, M. D. (Med. Rec.)—Eighteenth Annual Catalogue and Announcement of the Woman's Medical College of the New York Infirmary, June, 1886.—Report on Classification of Mental Diseases as a Basis of International Statistics of the Insane, made to the

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Belgian Society of Mental Medicine. By Clark Bell, Esq.—Two Rare Cases of Abdominal Injury. By J. A. Stucky, M. D. (Med. Rec.)—Drugs and Medicines of North America. By J. U. and C. G. Lloyd, Cincinnati.—Electrolysis in Gynecology. By Franklin H. Martin, M. D., with Discussion, etc. (J'l of Am. Med. Ass'n, July 17, 24, 1886.)—Transactions of the Louisiana State Medical Society at its Eighth Annual Session April 14, 15, 16, 1886.—Fourth Annual Announcement of the Northwestern Ohio Medical College, Toledo, Ohio, Session of 1886-87.—American Public Health Association, 1886. Fourteenth Annual Meeting, Toronto, Canada, Oct. 5, 6, 7, 8.—Annual Announcement of the New York Polyclinic, 214 and 216 East 34th Street; session of 1886-87.—Tenth Annual Announcement of the St. Joseph Medical College, St. Joseph, Mo., for session of 1886-87.—Samariter Briefe, von Dr. Friederich Esmarch.—Surgical lesions of the Brain and its Envelope. By Nicholas Senn, M. D. (Med. News.)—The Printing Press.—Johns-Hopkins University, Balt., 1886.—Operations on the Drum-Head for Impaired Hearing, with Fourteen Cases. By Seth S. Bishop, M. D. (Jour. Am. Med. Ass'n.)—Board of Health Report on the Biloxi Fever.—Galvano-Cautery in Diseases of the Prostate, Bladder and Urethra. By Robert Newman, M. D. (Jour. Am. Med, Ass'n.)—Permanent Removal of Hair by Electrolysis. By Samuel E. Woody, A. M., M. D.—Surgical Notes from the Case-Book of a General Practitioner. By Wm. C. Wile, M. D. (N. Eng. Med. Mo.)

Aeration of Water.—A process of mechanical aëration of the water in the city pipes by the injection of 20 per cent by volume at atmospheric pressure has been tried at the station supplying West Philadelphia. The result was a surcharge of oxygen which did not succeed in altogether freeing itself in the open basin but passed into the distributing mains and manifested itself at the faucets in the houses.

The chemical effect of the aëration was to reduce the free ammonia 76 per cent., the albuminoid ammonia, 40 per cent., to eliminate the nitrous acid, diminish the total solids and increase the total gases 22 per cent.

Americans at the British Medical Association.—According to the *British Medical Journal*, Aug. 28, 1886, a striking feature of the sessions of the Section of Obstetric Medicine was the large number of American obstetricians and gynecologists who took part in the debates.

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REPORTS ON PROGRESS.

MEDICINE.

To Disguise Quinine.—Dr. F. A. Castle claims that the compound elixir glycyrrhizæ, prepared according to either of several formulæ in use among druggists, will effectually disguise the taste of quinine, a teaspoonful of the elixir covering fully five grains of the sulphate of quinine. They should, however, be prescribed separately, and only be mixed when about to be taken.

To dispel the bitter taste when quinine is taken in substance or in watery solution he says that a mouthful of soft bread is very effective.—*Med. Record*, Sept. 18, '86.

Treatment for Tape Worm.—W. C. Bennett advises the administration of teniacides about an hour or two after a full meal, instead of when the stomach is empty, on the ground that in the latter case the remedy is rapidly absorbed, and therefore the patient, rather than the worm, receives the effect. But if given when the food is passing from the stomach into the intestine the remedy is less likely to be injured by digestion, and passes with the digested food along the length of the intestine, bathing the worm from end to end. He claims that experience corroborates his theory.—*New Eng. Med. Mo.*, Sept. '86.

Anti-Ferments for Summer Diarrheas of Infants.—Dr. Douglass Morton believes that in cholera infantum there is a vaso-motor paralysis identical in character with that of sunstroke; that this condition with its consequent abeyance or impairment of digestion, leads to fermentation of the ingested food; and that the inflammatory symptoms are due to the irritant action of the fermenting contents of the intestine.

The two leading indications for treatment then are first, to overcome the effect of heat by which the mucous membrane of the intestine has been brought into a state of congestion, which is to be

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accomplished by means of measures for the reduction of temperature. The second indication is to prevent fermentation.

For the last three years he has been using with eminent satisfaction the nitrate of silver and the bichloride of mercury, finding that in a majority of cases the simple arrest and prevention of fermentation is sufficient to control the disease.

When nausea and vomiting have been present, he thinks best results have been gained by the silver salt, but that the mercuric bichloride is the most generally useful. The dose of nitrate of silver that he has generally administered is gr. $^1/_{32}$, four or five times a day to a child a year old, dissolved in distilled water and well diluted. Of the mercurial he gives gr. $^1/_{100}$ dissolved in water, to which has been added a little alcohol or aromatic tincture.

In the cases where the bowels continue loose for some time after the acute stage has passed off he finds nux vomica a most valuable agent in doses one-fourth to one-half drop of the tincture every hour or two for a child one year old.—*Med. Record*, Sept. 18, '86.

Selection of Cathartics.—Dr. Henry M. Field defines a cathartic as "an agent or agency which increases both peristalsis and intestinal secretion, with result of provoking preternaturally free and frequent evacuation of the bowels." In a paper in which he discusses the "Treatment of Constipation," he makes the following suggestions as to the choice of cathartic agents:

1. The salines do not commonly agree with the aged—they find them too chilling; and a dose of Epsom salts, which may act very kindly upon the young and middle aged and vigorous, may bring serious disaster to the old man or old woman. A sudden depression of vital energy and the function of calorification thus procured, together with other favoring circumstances, have more than once precipitated the subject into a fatal pneumonia.

2. All cathartics are apt to be attended with colicky complications when given to a woman at the epoch of the menopause; and especial combinations at such time, as with carminatives, should be directed against this painful action.

3. The common domestic cathartic, senna, should never be prescribed to the subject of cumulative constipation or impacted feces. If there be anything answerable to a fecal plug formed in the course of the small intestine or near the valve on either side, such a peristaltic cathartic as senna will infallibly occasion serious and

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even alarming colic before evacuation can be accomplished; and the same restriction applies to a similar use of an integral dose of calomel.

4. In case of impacted constipation where it is to be presumed that the bowels are more or less distended with hard, dry, knotty, scybalous masses (and the more imperatively if there be suspicion of typhlitis or perityphlitis), nothing works so safely and well as Epsom salts, possibly energized with minute doses of tartar emetic, gr. $^1/_{16}$ to $^1/_{12}$. Or if it be desirable to apply a cautious, peristaltic stimulant in this condition, or in whatever condition declares absence of organic contractility in the bowels, nothing else can be so direct in operation as gr. $^1/_{40}$ of strychnia sulph., inserted once or twice in the twenty-four hours in the areolar tissue of the abdominal wall.

5. When the subject of constipation is also subject to menorrhagia or metrorrhagia, aloes, senna and cascara are contraindicated unless in the exceptional cases where ergot is indicated. In such cases Dr. Field recommends the use of cream of tartar.—*Jour. Am. Med. Ass'n*, Sept. 11, 1886.

Cold Applications to the Precordia in Fever.—F. T. Grigorovich (translated from the *Vratch* by Theo. Maxwell), after an extended study of the effect of cold applications to the precordium in fever, reaches the following conclusions:

1. The cold undoubtedly reaches the heart itself, and thus produces an effect on its action.

2. This effect is particularly noticeable when the cardiac beats are increased in frequency in consequence of a high temperature quickly attained, and where a certain degree of sensitiveness to a high temperature exists.

3. The effect of cold is not marked at the end of a prolonged attack of fever, pathological changes having by that time probably become established in the cardiac muscle.

4. The local application of cold is only capable of protecting the heart muscle from the effects of a high temperature when it is applied assiduously from the commencement of the disease.

5. Under its influence the action of the heart improves, the number of beats diminishes, while their force and amplitude increase.

6. Cold applied to the region of the heart diminishes the gravity of the *typhoid* condition, and favorably influences the respiration.

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7. With regard to the effect of cold applied to the region of the heart on the course of the general temperature, I cannot at present express a decided opinion, as I did not investigate that question; but in the results which I obtained, indications may be found of the possibility of its causing some diminution of the temperature.—*Practitioner*, Aug., '86.

Ichthyol in Rheumatic Swellings.—Dr. Jos. Schmidt has found ichthyol remarkably efficacious in the removal of swellings, either traumatic or rheumatic. The affected parts are to be washed first with lukewarm water, and then the solution is to be applied on a piece of cotton. Thorough rubbing is a greater requisite than the application of a large quantity of the drug. One application a day is usually sufficient if the drug is well rubbed in. Pain and swelling invariably yield, and a couple of days suffice in most instance to eliminate all morbid symptoms. After applying the ichthyol an ordinary dressing, in rheumatism preferably cotton, should be applied.—*Therap. Gazette*, July.

Pills to Avert Hemoptysis.—Dr. N. Gueneau's formula is the following:

Ext. rhataniæ,	℥j.
Ergot,	gr. xlv.
Pulv. digitalis,	grs. vijss.
Ext. hyosciami,	grs. iv.

M. Div. in pill no. xx. Sig. Four or five in twenty-four hours. —*Les Nouveaux Remedes*, July, '86.

Infantile Diarrhea.—Archibald Macdonald holds that there is no greater certainty in therapeutics than that "infantile cholera," profuse, watery diarrhea, will be cured if treated within the first few hours, by one-sixth of a grain doses hourly of grey-powder. He generally adds two grains of lactopeptine to each dose. When the stools are slimy and perhaps streaked with blood, he gives liquor hydrargyri perchloridi, ℥iiss in water, ℥ii of which a teaspoon ful may be given every hour.—*Brit. Med. Jour.*, Aug. 21, '86.

Salicylate of Iron in Diarrhea of Children.—James Braithwaite refers to a form of diarrhea in children, usually occurring between the age of weaning and four or five years of age, and characterized by horribly offensive stools. Though commonly met with in summer, it is different from the summer diarrheas of

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younger infancy, in which the stools are sour but not necessarily fetid. It is not amenable to treatment by astringents, nor has alteration of diet much effect upon it.

It may, however, be successfully treated by disinfecting the bowel contents by means of salicylate of iron, as in the following prescription, which is suitable for a child two years of age:

℞ Ferri sulphatis, - - - - - - - ℈j.
Sodæ salicylat,. - - - - - - ℈j.
Glycerinæ, - - - - - - - - ℥iij.
Aquæ, q. s. ad., - - - - - - ℥iij. M.

The iron and the salicylate should be dissolved separately and the solution mixed. The color is darker than port wine, and the taste not unpleasant. One teaspoonful must be given every hour until the stools become well blackened, which happens in about twenty-four hours; or a larger dose at longer intervals. The medicine should then be given every three or four hours, and occasionally a small dose of castor-oil to clear the bowels out and get the secondary constipating effect of the oil.—*Brit. Med. Jour.*, July 17, '86.

Belladonna as an Adjuvant.—Prof. Goll in an address before the Swiss Medical Association, referred to the value of combination of certain drugs which he thinks we are in danger of overlooking in these days when so much thought and study is bestowed upon the isolation of active principles, and when the tendency is so strongly to the avoidance of polypharmacy and the administration of single remedies.

Among other illustrations he refers to some uses of belladonna. He mentions the well known practice of combining atropia or belladonna with opium as a palliative against night-sweats, cough and dyspnea of phthisis. Another less appreciated use is the combination of one part of atropia with ten to fifteen of morphia which has been found in many cases to relieve almost entirely the vomiting and nausea so often following the hypodermic injection of morphia. When the morphia is to be continued it is generally sufficient to add the atropia only to the first few doses, as the system then seems to acquire a tolerance of the morphia.

So the combination of belladonna or atropia with iodide of potassium will generally prevent or remove the nasal catarrh which so often attends the use of that salt.

Another valuable adjuvant action of belladonna is that found in

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its combination with colocynth, senna, and other drastic cathartics, preventing the griping and colic which accompany their action when administered alone. The professor commends both the old combination of extract of hyoscpamus with colocynth and aloes, or the more modern combination of extract of belladonna with three times its weight of podophyllin and soap.

Preliminary injections of atropia are said to diminish very greatly the danger of cardiac paralysis in chloroform narcosis. Belladonna with quinine or salicylic acid has a well deserved reputation in the treatment of neuralgia.—*Therap. Gaz.*, Sept., '86.

Fresh Milk in Acute Arsenical Poisoning.—Dr. Joseph Jones urges upon the attention of the profession the value of fresh milk in large and frequently repeated doses in the treatment of all cases of irritant poisons, and especially in acute arsenical poisoning.—*Virg. Med. Mo.*, Oct., '86.

Dentifrice to Prevent Mercurial Stomatitis.—

℞ Potass. chlorat. pulv., - - - 25.
Quinquinæ pulv., - - - - - 10.
Cachou pulv., - - - - 10.
Tannin pulv., - - - - - 1.
Cretæ prep., - - - - 10.
Ess. menthæ, - - - - gtt. v.

M. Morning and evening rub the teeth and gums when mercurial inunctions are being used against syphilis. Rinse the mouth carefully after each meal. This has been very successful in preventing the development of mercurial stomatitis.—*L'Union Méd.*, Sept. 7, 1886.

Yellow Fever, its Transmission by the Culex Mosquito.—Dr. Charles Finlay, of Havana, maintains that yellow fever is not spontaneously transmissible by infection through the air by contact, but that it may be artificially communicated by inoculation, and only becomes epidemic when such inoculations can be verified by some external natural agent, such as the mosquito.

The history and etiology of yellow fever exclude from our consideration as possible agents of transmission, other blood-sucking insects, such as fleas, etc., the habits and geographical distribution of which in no wise agree with the course of that disease; whereas, a careful study of the habits and natural history of the mosquito

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shows a remarkable agreement with the circumstances that favor or impede the transmission of yellow fever. So far as Dr. Finlay's information goes, this disease appears incapable of propagation wherever tropical mosquitos do not or are not likely to exist, ceasing to be epidemic at the same limits of temperature and altitude which are incompatible with the functional activity of those insects; while on the other hand it spreads rapidly wherever they abound. From these considerations, taken in connection with his successful attempts in producing experimental yellow fever by means of the mosquito's sting, it is to be inferred that these insects are the habitual agents of its transmission. It cannot be denied, however, that other such agents may and probably do occasionally occur, but not being endowed with the same facilities for rapid and extensive operation, their influence becomes insignificant as compared with the action of the Cuban culex.—*Am. Jour. of Med. Sci.*, Oct., 1886.

Ichthyol in Burns.—Dr. Joseph Schmidt commends most emphatically the use of ichthyol in burns. If applied at once it prevents vesication and alleviates pain. In burns of the first degree an immediate application will remove all symptoms in a very short time. In burns of the second degree it will either remove all morbid symptoms or reduce the burn of the second degree to one of the first degree, invariably dispelling the pain soon after the application. He believes that it will replace all other therapeutic measures of less efficacy.—*Therap. Gaz.*, July.

The Local Treatment of Pseudo-Membranous Croup; Intubation of the Larynx.—Dr. J. Lewis Smith expresses his belief that intubation is destined to be employed more generally than tracheotomy in the treatment of pseudo-membranous croup. He maintains that in all cases in which the obstruction is limited to the larynx and trachea, intubation relieves the dyspnea as quickly, effectually, and permanently as does tracheotomy. It gives, in most instances, complete relief for a time. If the respiration subsequently become embarrassed, and no benefit occur from cleaning the tube, tracheotomy may be required. Intubation may properly precede tracheotomy in most cases.

Not a few parents, in the middle and lower classes, allow their children to die rather than consent to this operation. On the other hand, few parents will object to intubation, and when they see the

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relief which it produces, they will probably consent more readily to tracheotomy, if the dyspnea should return. If only one of these operations be performed, statistics thus far show nearly as good a result from intubation as from tracheotomy.

Now that diphtheria has become so common the physician should be provided with the necessary instruments for intubation whenever diphtheria appears in his locality. Alkaline and trypsin inhalations, properly and almost constantly used, and intubation performed early, when the patient begins to suffer from dyspnea, would probably prevent the necessity of tracheotomy in a large proportion of instances. But if such treatment do not fully relieve the dyspnea, it will in most instances, so diminish it and retard the progress of croup, that the physician, remote from help and unfavorably situated for the performance of tracheotomy, will have ample time to prepare for this operation. Intubation may prevent the need of tracheotomy, but if not, it presents no hindrance to it. —*Am. Jour. of the Med. Sci.*, Oct., 1886.

Laxative Pill.—E. DELPECH found the following combination a serviceable one as a laxative:

℞	Res. podophyllin,	3	gr. xlv.
	Pulv. cumin. sem,	2	gr. xxx.
	Sapon amygdal.,	1.5	gr. xxii.
	Ext. gentianæ,	1.5	gr. xxii.
	Ext. hyosciami,	0.5	gr. viiss.

M. Div. in pill. c. Sig. Take one at supper time with the first portion of food.—*Les Nouv. Remed.*, 15 Aout, '86.

SURGERY.

The Surgery of the Pancreas, as Based upon Experiments and Clinical Researches.—DR. SENN maintains that complete extirpation of the head of the pancreas with the common duct is never justifiable, and that operations upon this portion of the gland for injury or disease, for the present at least, must be limited to partial excision of the head, with preservation of the common duct.

He finds that cirrhosis or chronic interstitial pancreatitis sometimes produces stenosis of the bile-duct, or the pancreatic duct and that when the obstruction is followed by retention of the secretions,

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an operation becomes always necessary in biliary retention, which should be treated by establishing a new outlet for the bile into the duodenum, while the formation of an external pancreatic fistula in cases of cyst of the pancreas becomes necessary only when the presence of the swelling in itself has becoms a sufficient source of pain and discomfort to warrant treatment by abdominal section.

In pancreatic abscess he holds that a positive diagnosis of the presence and precise location of the abscess is only possible by resorting to explorative laparotomy, and that this should be always resorted to when the history of the case and the symptoms point to a probable diagnosis. The abscess found and located by abdominal section should be removed by partial extirpation of the pancreas when it is endopancreatic and located near the splenic end of the pancreas. When extirpation is impossible, or when it is located in the head of the pancreas or on the anterior surface of the pancreas, it should be treated by the formation of an anterior abdominal fistula; when located behind the pancreas, by through drainage, or lumbar drainage performed through the abdominal cavity.

The propriety of surgical treatment of pathological hemorrhage of the pancreas should only be entertained when the accident takes place in consequence of circumscribed, benign pathological conditions, which in themselves do not jeopardize the life of the patient, and which admit of measures for arresting hemorrhage by direct treatment. Operative interference should therefore be limited to hemorrhagic cysts of the pancreas. In well-defined cases belonging to this group, it would be justifiable to resort to abdominal section as the only means of arresting fatal hemorrhage, by direct ligation of the bleeding points, or by removing such localized portions of diseased tissue from which the hemorrhage has taken place.—*Am. Jour. of the Med. Sci.*, Oct., 1886.

Castration in Mental and Nervous Diseases.—Sir Spencer Wells maintains that the operation of oophorectomy, or the removal of normal ovaries, is one which may be advised in some cases of uterine fibroids, and in uncontrollable uterine hemorrhages; that it is to be resorted to in certain malformations of the genital organs, deformities of the pelvis, and accidental obstructions of the vagina; that the right to use it is very limited in cases of ovarian dysmenorrhea or neuralgia, and only when they have resisted all

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treatment, and life or reason is endangered; that in nearly all cases of nervous excitement and madness it is inadmissible; that it should never be done without the consent of a sane patient to whom its consequences have been explained; that the excision of morbid ovaries and appendages should be distinguished from oophorectomy, and ought not to be done without the authority of consultation, as in most other cases of abdominal section. That in nymphomania and mental diseases it is, to say the least, unjustifiable.

Prof. Hegar holds that castration is indicated in a psychosis evoked or maintained by pathological alteration of the sexual organs, and in a neurosis originating from the same source, as soon as this imperils life or hinders all occupation and all enjoyment of life. The indication is also present when that disease represents only one causal factor in the genesis of the affection, without the removal of which a cure is not to be thought of. The remaining causes of suffering must be in this case accessible to treatment. Other milder methods of treatment must have been tried previously without success, or, as in the case of many small tumors of the ovaries and tubes, must from the outset give no promise of success. Castration must actually affect the cause which occasions or keeps up nervous irritation. The operation will thus be of use when a degenerated or dislocated ovary represents the irritative focus, or as soon as a greatly swollen and retroflexed uterus presses on the sexual plexus and the organ is brought into a state of atrophy. Castration promises success when the bleeding and anemia occasioned by a fibroma play an important part in the maintenance of a psychosis, so that a cure does not appear possible without getting rid of that evil; but castration is absolutely no universal remedy for any neurosis originating from a genital-organ disorder, or kept up by the same. The cessation of ovulation will avail nothing if the irritation starts from the nerves which are compressed in a shrunken cicatrix of the broad ligament, or elsewhere in a cicatrix of the pelvic connective tissue.

Dr. Battey writes that he has performed castration for the relief of mental and nervous disorders, which may be divided into three classes: oophoro-mania, oophoro-epilepsy, and oophoralgia. He uses the terms oophoro-mania and oophoro-epilepsy instead of hystero-mania and hystero-epilepsy, because clinical experience teaches him that these disorders are dependent upon a nervous irritation

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proceeding from the ovaries and not from the uterus. He finds the disorders existing (*a*) in cases in which he recognizes organic disease of the ovaries, and is not able to recognize any organic disease of the uterus; (*b*) in cases of uterine as well as ovarian disease, when the diseased ovaries are removed, the nervous distnrbance disappears notwithstanding the fact that a displaced or diseased uterus may remain. In his experience the time required for the disappearance of nervous disorders, after removal of the ovaries has been quite variable. In general, epileptiform manifestations have ceased at once. Some of the cases have required for a time the tranquilizing effects of the bromides to ward off threatening symptoms, whilst others have needed nothing. His cases of mania have all been quite chronic, and the improvement has been slow. In oophoralgia, in a few instances, the cure has been immediate and permanent. In the majority it has been slow and gradual; and in others nothing has been gained for even two years after the operation. In a few the long established opium habit has proved a complete bar to recovery.

In his cases which have had two years or more to test them, seven have been cases of oophoro-mania; of them one was cured, and four improved; nine were cases of oophoro-epilepsy, all cured; twenty were cases of oophoralgia, and thirteen were cured and three improved.—*Am. Jour. of the Med. Sciences*, Oct., '86.

DERMATOLOGY.

Under the charge of W. A. HARDAWAY, M. D., *Professor of Diseases of the Skin in the Missouri Medical College and the St. Louis Post-Graduate School of Medicine*, and

W. L. BLICKHAHN, M. D., *Assistant to Dermatological Clinic, of St. Louis Post-Graduate School of Medicine.*

Treatment of Syphilis.—KAPOSI, in the Congress for Internal Medicine: says "the treatment of syphilis does not materially differ as regards the remedies or methods of administration from that of the fifteenth or sixteenth century, except that in the early part of the present century iodides were introduced, as well as a more rational inunction cure and the methodical injection measure of Lewin. Whereas Baehrensprung doubts thecure of syphilis, Kaposi firmly believes in the curability.

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Is there an abortive method is a question he asks and then answers for himself. If the theory that the virus lies dormant for a greater or shorter length of time in the initial lesion be accepted, it seems reasonable enough to prevent absorption first to destroy the virus in the primary lesion by excision or cauterization. But up to what time is the method of use? How long after infection may one wait before interference? What should be done with the "primary lesion" which has nothing of the character of "hard sore" about it, yet is followed by syphilis? Specificity of a primary lesion could be proved to be such only by proof of the presence of the syphilis bacillus. Even then the anatomical seat of the lesion is such as not to allow of its removal in all cases. K. sees good results from the local use of emplast. hydrarg.

Secondly, by interfering with the absorptive channel, section of the lymphatics, and the glands in the first zone of infection, but which ones and how many? Kaposi thinks very little of the procedure.

Thirdly, by the preventive (general) treatment. Kaposi does not think that practicable. In his experience, and that of others, such treatment only *delays* the appearance of the primary efflorescence and makes the first symptoms more severe in character. Kaposi always waits for a well defined exanthema before instituting treatment.

If after the disappearance of an early syphilitic eruption a return of a similar one occurs shortly, insufficient (inadequate) treatment may be looked on as the cause. Kaposi speaks of remedies properly speaking (hydrarg. iodide, wood drinks, decoct. Zittann,?), and adjuncts or after treatment (sulphur baths, water cures).

Hydrarg. is used endermatically, hypodermically and by the mouth. Inunctions of ung. hydrarg. head his list, he preferring ung. hydrarg. to lanolin hydrarg. and sapo. unguent hydrarg.

Lewin's hypodermatic method allows the exact amount of mercury used to be computed, and is, therefore, more exact. For internal use Kaposi recommends in the order named, calomel and hydrarg. tannic, oxydul. (Lustgarten) more particularly for children.

All skin troubles, whether of early or late syphilis, are treated with mercury, the chronic affections of other parts of the body with iodide of potassium.

Preferring ung. hydrarg. inunctions, Kaposi further recommends corros. chloride, calomel and peptone hydrarg. subcutaneously. He does not like iodides alone in the early forms of syphilis.

"After treatment has no specific effect."

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The duration of treatment varies with each individual case—the point is to be conscientiously careful and thorough in the treatment from the start. *No* treatment unless evidence of syphilis, (that is aside from the "sclerosis"); "in an otherwise healthy person anti-syphilitic treatment is not harmful."

Stress is laid on local treatment.

NEISSER (also at the Congress at Wiesbaden), in opposition to Kaposi, says that only by the statistics can the rational treatment of syphilis be determined; he wants to make them of private practice and general observation. He proposes three questions:

1. Is it possible to influence the development of constitutional syphilis by treating the primary syphilitic processes?

2. Should constitutional syphilis be treated with medicine or allowed to run its course unheeded?

3. What plan of treatment should be set up?

He believes in the future discovery of a bacillus syphilis, and the possible radical destruction of the infecting virus; thereby hangs the question, is the "sore" the first local product, or the first evidence of constitutional infection?

Auto-inoculations, as well as excision, have sometimes demonstrated the fact that the primary sore is a local trouble. Neisser believes in the possibility that syphilis may sometimes be radically cured by excision. To this he would add that the primarily affected glands be extirpated, and not too late. He goes further and advocates, yes, advises, to destroy each and every point of infection with caustics (lunar caustic being excluded as a matter of course); but he allows, with Sigmund, that even sores of only from one to three days (after being cauterized), are followed by syphilis, though whether infection followed by way of blood vessels or lymphatics was not to be learned. Mercury is his remedy, though he is not particular when he begins treatment, whether before or after the appearance of the eruption. Syphilis must be treated as syphilis; not treated usually calls for a grave prognosis. Mercury prevents the infection of the offspring, as well as, if not preventing, at least making lighter the later forms of syphilis, in the estimation of Neisser.

He is a believer in the doctrine of Fournier,—chronic intermittent treatment. His treatment is to begin as soon as the diagnosis is positive. Neisser does not say whether to begin treatment with

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the positive diagnosis of a hard sore or not. He leaves the question open. Neisser's treatment covers a period of two years, changing from energetic antisyphilitic treatment to milder non-specific remedies, and back again. Baths and decoct. Zittmann in his estimation are very valuable adjuncts to the hydrarg. treatment. In late syphilis he uses iodides, but only in combination with mercury. He gives from 2.0 to 12.0 [ʒss—ʒiii] per day and institutes a milk diet. In early syphilis iodides are only used in neuralgias.—*Monatshefte fuer Pract. Dermatol*, No. 8, 1886.

Treatment of Syphilis.—Steiner, after remarking that the remedies in use had been so for hundreds of years, and that great confusion existed on account of the different views of different authorities as to when to begin treatment, whether by excision of primary lesion, waiting for primary eruption, or even for secondary symptoms (Liebermeister and Carpary) and what form of treatment to pursue, whether inunction (allowing at the same time that it is preferable) or injections, and the number of inunctions or injections to give, or, in other words, how long to continue treatment; advises as very rational, because it causes the patient little inconvnience and does away with suspicion, injections hypodermatical of calomel. This was introduced by Scarenzio in 1864, but laid aside on account of the pain attending the administration, and the tendency to formation of abscesses. It was again recommended by Smirnoff in 1883, and later highly recommended by Neisser whose formula is—

Calomel.	
Natr. chlor. aa. - - - - - - - -	5.0
Mucil. g. Arab. - - - - - - -	2.5
Aq. destil. ad - - - - - - - -	50.0

Of this a syringeful is injected in the lateral portions of the glutei once a week, and four to six injections are used in all.

In a series of severe and similar cases of syphilis specially selected, good results were seen. Infiltration moderate, slight tendency to formation of abscesses, seldom sloughing. Pain less than in using Lewin's sublimate solution:

Hydrarg. bichlor. corros., - - - - -	0.25.
Natr. chlor., - - - - - - - -	1.50.
Aq. dest., - - - - - - - - -	25.00.

Patients did not refuse to be further treated, as they did with

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other solutions more painful. Stomatitis slight and limited to a painful tumefaction of the gums. Treatment was effectual in cases with secondary symptoms of from eight days to eight months' duration. Disappearance of condylomata after one or two injections. Angina or the exanthemata require a longer period of treatment. That the treatment is not infallible stands to reason, and in one case after seven injections he used decoction Zittmannii and potassium iodide.

Iodide of potassium he recommends in severe forms of tertiary when patient is broken down, at the same time giving a wholesome and nutritious diet. Local troubles are caused to disappear more rapidly by local treatment, Unna Pflastermulle, but that is not saying that the systemic trouble is also relieved. He mentions the use of collodion sublimate, iodoform, arg. nitrat., acid pyrogall., Pacquelin when condylomata luxuricus acid chromic, 1 to 8 in stubborn Leukoplakia.— *Wuertt. med. corr. Bl.* 1886, No. 10.—*Monatshefte, f. prakt. Derm.* 1886, No. 8.

Treatment of Syphilis, Oleum Cinereum.—LANG begins by remarking to those intending to treat syphilis that it may be cured spontaneously, it is self limited, and that this favorable termination may be expected more confidently as the patient holds himself the more closely to the rules of hygiene. At the same time the only proof that the cure has been a lasting one (except the patient re-contract syphilis), is that no symptoms of syphilis again appear and the offspring shows no syphilitic taint.

Hygienic measures are all important in the treatment of syphilis.

His treatment is by means of mercury, and he injects metallic mercury into the skin, his preparation is called *Oleum Cinereum*, composed of fats, oils and mercury, and is a rather thick, grayish fluid in which the mercury is said to be evenly distributed in a finely divided state.

The quantity of metallic mercury in a cubic centimetre of a 20 per cent oleum cinereum is about 23 cgm (.23.) Compared with the sublimate solutions it would take 31 syringefuls of a 1 per cent sublimate solution to contain as much mercury as one gm. of the ol. cinereum (31 cgm. of sublimate about equal 23 cgm. of mercury; as a 1 per cent sublimate solution is generally used, and the Pravaz syringes generally hold 1 gm. it would take 31 syringefuls.) Lang says that mercury in form of the corrosive chloride is far behind metallic mercury in its beneficial medicinal action.

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He injects once or twice a week. He generally injects 0.10 to 0.15, though occasionally use has been made of 0.20 and 0.30. Increase the amount of the injection, and the time between the administration extends as a matter of course—the injection may be reduced to 1 in 8-14 days or even longer; by larger doses of course greater danger of mercurialismus ensues. The back appears the best place to inject (avoid that portion pressed on by the suspenders.)

Locally and regionally the oleum cinereum has also been used with decrease of dose as the injections approach the infiltrated tissues. Doses such as 0.05–0.01: a Pravaz syringe of smaller calibre is used, narrow and long with a graduated piston rod. Enlarged inguinal glands are reduced by injecting into the inside of the thigh (0.01–0.02 cc. as an injection every 8 to 14 days). A lymphadenitis about stenro-cleido-mastoid and an initial lesion on the tonsil receded on injecting 0.10 in the nape of the neck. As a dressing in suppurating syphilitic manifestations he uses calomel and "Quick silber oxydul." gauze. Moist papules on the glans, sores between the toes, large broken down gummata are treated with this dressing.— *Wiener Med. Wochenschrift*, Nos. 34 and 35, 1886.

Hydrargyrum Formamidatum.—STEINER reports that in one hundred and twenty-five cases the formamidatum injections were used (though not to the exclusion of other remedies) usually one centigram [$\frac{1}{15}$ gr.] sometimes two or three. Disappearance of symptoms (pigmentation and some lymphatic enlargement remained), occurred in ninety-two cases.

In eleven cases, even after long continued treatment, no cure was effected. In thirty-nine the treatment was continued without any mercurialismus or abscesses. In others painful swellings and abscesses resulted. Kopp believes the formamidatum injections are only good in mild cases. Iodides at the same time are not contra-indicated. Rapid elimination after 1-3 injections speaks for mild effect. Kopp finds no difference as regards recurrent syphilis, between formamidatum injections and inunction of ung. hydrarg.; the percentage was 86 without any treatment, 93 per cent (Diday); inunction 81 per cent (Lewin); sublimate injection, 31 per cent, (Lewin). K. does not think statistics of reappearing syphilis reliable. He places the Hg. F. and the peptonate and the bicyanate on equal footing; he thinks the Hg. F. is most stable. Injections of

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corrosive sublimate are more painful, cause abscesses oftener, but remain longer in the system. Kopp places the inunction above all other measures.—Kopp in the *Vierteljahresschrift fuer Derm. und Syph.* 1885. *Monatshefte f. prakt. Derm.* No. 8, 1886.

Treatment of Teliangiectasis.—In five cases DR. BOING-UERDINGEN (*Deutsche med. Wochenschr.* 1886, No. 23) painted a four per cent sublimate collodion solution on the teleangiectases four successive days, spreading the solution on until the tumor had a white film on it one cm. thick, and was rewarded with very good results.—*Monatshefte fuer Pract. Derm.*

Erythrasma.—G. BEHREND says that V. BOEHRENSPRUNG thus called a skin trouble of circumscribed exfoliating spots or patches with raised reddish borders, forming circular or serpiginous lines, almost exclusively localized to those portions of skin in close contact with one another. Scrotum, labia, axillæ, about the mammæ in women with hanging breasts, in the fold of skin formed by a dependent panniculus in fat people. From these points the disease spreads; as an example, a small spot on the scrotum or thigh may extend to the knees, over the perineum and upwards on the abdomen; aside from this there may be spots affected at a considerable distance from site of election, as the face, neck or back, in conjunction with erythrasma in the aforesaid favorite seats. Subjective symptoms as a rule are wanting, though there is slight or even very decided itching, so that evidence of the vigorous use of the nails is apparent. The erythrasma has the same general appearance whether spots be small or very large, old and recent, and there is no evidence of involution. The same general color and the exfoliation is in the form of very fine scales like dust. Fresh spots have a bright red color while the older ones, or the older parts of the same one after it has arrived at considerable size, run more into the yellowish, resembling *pityriasis versicolor*, and for that reason some authors want to class it between *herpes tonsurans* (tinea tricoph.) and *pityriasis versicolor* (tinea versic.) even going so far as to call it a transition to the latter.

Burckhardt first discovered a fungus in the scales, calling it *microsporon minutissimum*, v. Boehrensprung confirming the discovery. The spores are very small and are found in groups, and the mycelia are very fine, and of an *s* or *u* form, ramifying and dividing, and forming conidia chains. They differ from *Tricoph. tonsurans* and

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that of *favus* and the *microspor. furfur* by their delicacy and small size.

Hebra describes it under *eczema marginatum* which has a similar clinical history; he considered it non-parasitic, but Pick discovered a fungus and Hebra allowed, though its presence was constant, that it was accidental. Koebner called this (eczema marginatum) *herpes tonsurans*, and looked on *erythrasma* as a distinct and different trouble.

Pick's vaccination experiments were more complete. He, and Kaposi later on agreed with him, decided that *eczema marginatum* was a parasitic trouble, with symptoms of *herpes tonsurans* combined with those of an intertrigo, and described two forms, one with peripheral results, *herpes tonsurans vesiculosus*, and the other with smooth desquamating surfaces with a raised, wall-like border, representing *herpes tonsurans maculosus*.

The first form is Hebra's original *eczema marginatum*, the second v. Boehrensprung's *erythrasma*.

Later Besnier and Balzer decided that *erythrasma and eczema marginatum, or herpes tonsurans* were not one and the same thing. They held *eczema marginatum* and *herpes tonsurans* as identical, while *erythrasma* is distinctly different. These differential points are chronicity and difficulty of gaining therapeutic effect, together with small size of fungus and spores for *erythrasma* as compared with *herpes tonsurans*.

That these points of difference are not all sufficient may be seen in the clinical appearance. Koebner, a thorough dermatologist, who differentiates between *erythrasma and eczema marginatum*, and also identifies the latter with *herpes tonsurans*, describes a case of *eczema marginatum* which Pick and O. Simon took for *erythrasma*.

The nature of the fungus elements, their small size, which all authors have referred to, is not sufficient for diagnosis. Though it is not to be believed that the mycelia and spores are not as large as in herpes tonsurans, yet among the coarser elements of the latter there are innumerable smaller ones which increase in number (while the larger ones decrease) the older the trouble is, until the coarser variety disappear entirely: spores fare likewise.

The only experimental infection of Koebner was not complete enough. The same disks and circular patches described by Koebner, Behrend saw in an experimental vaccination on Dr. Wende, of Buffalo, who was infected after the Grawitz method, with a re-inculture

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of Tricophyton of the third or fourth generation. appeared as if the fungus had lost much of its vitality by way of the culture, as the spots, after forming and growing to a certain size, underwent spontaneous involution. Neither papules nor vesicles were formed, nor was there any itching.

There is one clinical phenomenon which separates *erythrasma* from *herpes tonsurans*, which Hebra had already called attention to, that erythrasma, extending from the inner thigh up over the pubes, did not cause a brittleness with breaking off of the hair, as is characteristic of herpes tonsurans; in other words the fungus does not enter the hairs, but *herpes tonsurans* does not affect all hairs, for in affected bearded faces frequently large placques are seen where the hairs are slightly or not at all affected. The conclusion arrived at was that the fungus in the case was in an atrophic condition.

Behrend does not believe in the identity of erythrasma and herpes tonsurans: on the contrary he thinks them entirely separate and distinct, his object in bring forward the above being to show the different views held and the difficulties in the way of solving the problem.

Bizzozero demonstrated the fact that a large number of different kinds of fungi grow on normal skin, and found some resembling microsporon minutissimum and which came under the head of leptothrix. As these occur in erythrasma, he concluded they had no pathogenic significance.

Balzer and Dubreuihl find the fungus on the healthy skin, but not in such great quantities as in *erythrasma.* In cleanly persons only spores were found, in unclean and freely perspiring persons mycelia as well. They concluded that the microsporon minutissimum developed from perspiration and the products of degeneration of the epidermis, in such small quantities, however, as not to be irritating. Under favorable circumstances they may be present in such numbers as to bring on erythrasma, the chronicity of which would indicate its parasitic nature as well as the clinical picture and the possibility of spreading over other portions of the surface.

Behrend does not agree with them in their explanation of the origin of this fungus.

As erythrasma begins in such localities where two surfaces come in contact, in consideration of the above in relation to pathogenesis and clinical significance, Behrend comes to the conclusion that *erythrasma* begins as a simple eczema intertrigo upon which fungi

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settle secondarily, so that the original vulgar disease becomes secondarily a parasitic trouble. If these fungi are *microsporon minutissimum*, then the disease is that described by v. Boehrensprung, *erythrasma*: if, on the contrary, the tricophyton is found, it is a *herpes tonsurans* which, modified by the preceding eczema, shows the characteristics of *eczema marginatum*.

This comprehension being the only way to meet all arguments one way or the other which are encountered, does not interfere in any way with the fact that the clinical picture of both may be very similar, as they both possess one feature in common, both originating as an eczema.

TREATMENT.—Erythrasma is stubborn and very resistant toward therapeutic measures, and this peculiarity was used by Hebra as an evidence that it was non-parasitic. Of all remedies,sapo viridis, spiritus saponis,kalium, tar, sulphur, ung. Wilkinson, naphthol and sublimate, etc., none are so successful as chrysarobin or goa powder in the form of a ten per cent unguent. The rapidity with which the trouble is remedied thus shows the erroneousness of calling it resistant to treatment. Goa powder was first used where it is indigenous, for just this trouble, and its rapid curative powers first attracted the attention of European physicians.—"*Separat-Abdruck from the Real-Encyclopaedie der Gesammte Heilkunde, B.*

CITY WATER SUPPLY—Enthusiastic people have asserted that water should be as bountiful and free as air. This is now, in fact, the case, if one choose to go and get it; but the important difference between the two fluids is that air penetrates everywhere, and delivers itself at all elevations free of charge, while water seeks the lowest level, and has hitherto refused to flow up hill except upon compulsion. This involves expenditure of power and consequently expenditure of money which some one must pay.—*Rep. of Phil. Water Dept.*, 1885.

THE STUDY OF MEDICINE IN JAPAN.—In the Imperial University of Tokio there are said to be nearly one thousand students of whom a large portion are students of medicine. There are five German professors in the medical faculty.

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SOCIETY PROCEEDINGS.

AMERICAN PUBLIC HEALTH ASSOCIATION—EDITORIAL NOTES.

So much of enjoyment and recreation was combined with the profit and work at the recent meeting of the American Public Health Association that in giving an account of the meeting I think it but right to make an attempt to share with our readers some of the enjoyment which I myself had.

The city of Toronto, in which the meeting was held, is delightfully situated on the north shore of Lake Ontario; there are many handsome buildings, both public and private, and a number of important educational institutions.

Provincial and municipal authorities united with the members of the medical profession and others interested in sanitary affairs to make the meeting of the association both pleasant and profitable.

Arrangements had been made by the local committee by which favorable rates were secured from the railroads and hotels and telegraph companies. One notable feature of the arrangements was the provision for special attention to the ladies in attendance, a special "Ladies' Reception Committee" extending courtesies to the lady visitors, and doing much to make the occasion a memorable one to them.

The president, Dr. H. P. Walcott, of Cambridge, Mass., proved a most admirable presiding officer, and whether on the platform of the main hall, directing the affairs of the general meetings, or in the chair at the sessions of the advisory board, he displayed a familiarity with parliamentary law, a readiness and promptness in deciding upon points at issue, with a grace and suavity of manner and a clearness and elegance of diction which won for him golden opinions from all who were present. I do not think I ever attended a meeting of any association where it seemed to me that the presiding officer was, in all respects, so thoroughly and perfectly satisfactory.

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The first session of the association was held on Tuesday morning at about ten o'clock, Rev. H. M. Parsons offering an opening prayer. Dr. P. H. Bryce, chairman of the Committee of Arrangements made a statement of various matters of immediate interest; and then the secretary, Dr. Irving A. Watson, read a list of names approved by the Executive Committee as members of the association, all of whom were duly elected.

The report of the treasurer showed that there was on hand a balance amounting to $1,085.78. The first paper upon the programme was prepared by Dr. George Baird, of Wheeling, W. Va., and was read by Dr. Jas. E. Reeve, of the same place. The paper was entitled "Destruction of Night Soil and Garbage by Fire:"

Opposite the extreme southern limit of Wheeling, on the west side of the river is the north limit of Bellair. The latter town takes its water supply from the river into which the former place pours its night soil. The consequence is that Bellair is made a hotbed of disease. For the purpose of doing away with the evils caused in this manner, the Wheeling Health Department last spring made a series of experiments in the destruction of night soil and garbage by fire; and they claim that as a result they have found a means of entirely destroying these substances and their power of doing evil. Two facts about the burning of night soil were notable. One was that the odor was not what all thought it would be. It was something akin to that of burnt leather. Another fact was the intensity of the heat required to burn it. The first experiments were made in a bench of five retorts at the city gas works. Night soil was mixed with 50 per cent of fine slack, and three retorts were charged with this mixture. The other two retorts were charged with a mixture of equal parts of night soil and "breeze" (fine coke siftings). The retorts were charged at 11 P. M., and it was not until 7 o'clock next morning that the contents were reduced to a fine odorless powder. Another experiment of the same kind showed that retorts would not secure complete and rapid combustion, owing to the want of a full supply of oxygen. The furnace of a nail mill was then prepared

FOR A THIRD EXPERIMENT.

After twenty-four hours' heating a charge of twenty per cent fine slack and eighty per cent night soil was made, and was burned in one hour and twenty minutes. A second charge of "breeze" and night soil was made, and was burned in a little more than one hour.

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A third charge of night soil alone was made, and was burned in about the same time as the first charge. A trial was next made of a Smith's gas furnace used for heating steel slabs preparatory to being rolled into nail-plate. This furnace is much larger than that previously used, and capable of generating a more intense heat than any other furnace known. The result of the test was as follows: A barrel of ordinary garbage or slop was burned in four minutes; a barrel of butcher's offal (bones and animal matter) was burned in seven minutes; a barrel of fluid night soil, thrown into the furnace with buckets, was almost instantly evaporated, and a barrel of solid feces was burned in fifteen minutes. Convinced that this furnace had every requisite for fulfilling the design of destroying night soil and garbage, the committee reported the result of the above experiments to the Council, and recommended the making of a contract for such a furnace, capable of destroying daily sixty tons of night soil and garbage, the refuse matter from the butcher shops, and also for burning dead animals of all kinds which might die within the city limits. This furnace is to be constructed for using natural gas as a fuel. Of its success the writer maintained that there could be no doubt. The heating capacity of natural gas is more than four times greater than that of coal, which was used in the preceding experiments in which night soil was destroyed in one and one-quarter hours. With artificial gas generated from fine slack the night soil was burned in fifteen minutes. With natural gas better work could be done. In the use of natural gas as a fuel there is mere risk of destroying the furnace than of not entirely consuming the night soil. It must not be understood that this furnace can only be used where natural gas has been introduced as a fuel. The inventor has gas generators built with his furnaces in cities where there is no natural gas, and claims that he can produce a heat of greater intensity and with more economy than by any other method or from any other source outside of natural gas, and as cheap as natural gas can be supplied by a private company. Fine coal or slack is not the only substance from which artificial gas can be generated. Tanbark, peat and many other substances can be used. Mr. Smith's faith in the success of the furnace is so strong that he has agreed with the Wheeling corporation to ask no compensation until, by a series of successful experiments, he has shown its capacity to destroy all substances proper to be offered as tests of its powers.

The cost of the furnace does not exceed $2,500.

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Dr. Reeves was appointed chairman of a committee of five, to report further to the Association on the subject.

"Our Inland Lakes and Rivers, the Disposal of Sewage and the Spread of Infectious Diseases" was the paper next on the programme, and was read by its author Dr. Edward Playter, of Ottawa, Ont.

In view of the fact that very much of the disease which afflicts mankind is caused by the cast-off matters of the body finding their way back into the body through the air and water, it was inconceivable with what criminal negligence the inhabitants of towns and cities treated the matter of the preservation of the purity of the water supply. On the average every square mile of Lake Ontario, for instance, received the excreta and washing water of 65 persons. The water of the lake was changed only about once a week and came from Lake Erie, which was polluted still more than Lake Ontario. It should be remembered, too, that some of the excreted matter came from patients with contagious diseases. There was some diversity of opinion as to the rapidity of the oxidation of this matter, depending upon the rate of motion of the water. The danger of pouring sewage into our lakes is that the specific germs of contagious diseases might remain in the water when a chemical analysis would give no trace of their presence. These germs taken into the stomach would develop the specific disease under favorable conditions. The only safety seems to be to stop putting our sewage into our rivers and lakes, or else to take our water from great depths in the soil by artesian wells. Another evil of the present system was that the mineral matter was continually being taken from the soil of our farms, and instead of being returned, deposited at the bottoms of our lakes and rivers.

Mr. Alan Macdougall's paper giving an account of the "Toronto Sewers" was then read by Dr. Theo. S. Covernton. He called attention to some local special problems arising from the facts that the water supply of Toronto is found in Lake Ontario and that the sewage of the city is conveyed into the same lake. He showed by means of a map specially prepared for the purpose the relation of the sewers to the harbor and to the intake well of the water-works. He showed also the proposed plan for an intercepting trunk sewer by means of which it was proposed to convey all the sewage to a point three and three-quarters miles from the

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intake well. He also showed other suggested plans for removing the sewage to a still greater distance but which involved the necessity of pumping it.

Dr. Wm. Oldright was announced on the programme for a paper on "The Influence of Sewerage on Health;" but instead of reading a paper, made an address referring specially to the local conditions at Toronto, and raising the question whether the proposed trunk sewer, although the plan of one of the most eminent civil engineers in the country, would really accomplish the desired object of preserving their water supply from contamination by sewage. He was fearful that it would be unsafe under some conditions of wind and current. His address was well considered and forcibly put, but related exclusively to the special conditions of that city.

Mayor Howland stated the position which had been taken by the engineers who proposed the plan for the trunk-sewer. He acknowledged that he was a very strong advocate of the plan, having full confidence in the skill of those who devised it, and being strongly impressed with the urgent necessity of making some provision to protect the harbor and their water supply from pollution. He explained the details of the proposed plan, and expressed the hope that the association would see fit to express a formal approval of the plan, inasmuch as a popular vote was to be taken on the following day to determine the question of authorizing an appropriation for the purpose. He considered it a matter of the utmost importance that immediate action should be taken, and deprecated any expressions from officers of the Board of Health, or others, which would tend to cause doubt in the minds of the people in reregard to the success of the proposed trunk-sewer, inasmuch as details of arrangement could be altered but it would be a matter of difficulty to get the matter before the people in as favorable a shape again. The experts had stated positively and emphatically that the relative positions of the sewer out-fall and the water works in-take were such that there was not the slightest danger of contamination of the water.

Several members of the association took part in the discussion following, the general line of remark being to emphasize the importance of proper disposal of sewage and protection of water supply and a recognition of the necessity for some sort of an intercepting trunk-sewer for Toronto, but also of the necessity of further study and investigation of the local conditions with regard to

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prevalence of currents in the lake and the influence of strong winds before definitely recommending any specific plan. A resolution committing the association to an expression of approval of the proposed plan was referred to the executive committee, as are all resolutions offered for adoption by the association.

At the session on Wednesday morning the Executive Committee submitted the following as the deliverance of the association in regard to Toronto's sewage system:

"*Resolved*, That it is the sense of this association that the construction of an intercepting or main trunk-sewer, with an outlet or point of discharge sufficiently distant from the source of water supply to prevent its pollution, is an urgent sanitary necessity for Toronto."

The resolution was unanimously adopted.

It may be noted here that the result of the popular vote was an overwhelming defeat of the project, 1,501 votes against it to 435 in favor of it.

The morning session then adjourned.

It had been arranged that the sessions of the association should be held in the mornings and evenings, leaving the afternoons for the work of the executive committee and advisory council.

This afforded to delegates who were not burdened with such official responsibility the opportunity of becoming acquainted with the public buildings and other attractions of the city.

Toronto has a large number of fine church edifices, some of them very impressive and stately and with great variety in style of architecture. St. James' Cathedral (English) is a very large edifice, having a seating capacity of over 2,000,and a spire 306 feet high, the entire cost of the building being $220,000. St. Andrew's (Presbyterian) is regarded as one of the handsomest buildings in the city. The material is grey freestone and the style that of a feudal castle. The carvings over doorways and windows are specially fine. The Metropolitan (Methodist) has a wonderfully beautiful situation in the centre of a park of about two acres laid out with walks and flower beds and ornamental trees. The building is of white brick with cut stone trimmings, and shows to good advantage among the trees and shrubbery.

The Government House, the residence of Lieut.-Governor, Jno. B. Robinson, is quite a large, fine building of red brick, with Ohio cut stone dressings and is said to have cost $102,000. The gardens

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surrounding the house are very fine but, of course, would have been seen to better advantage a little earlier in the season. The legislative buildings are immediately south of the Government House. They are in no respect noteworthy. It is only to be said that plans for new buildings to cost half a million of dollars and to be erected in Queen's Park are now in hand.

Queen's Park is one of the attractions which every one is expected to visit, and is one in which the citizens of Toronto take a commendable pride. At the southern entrance upon a mound of earth covered with turf and adorned with flowers and shrubbery are mounted two large cannons, trophies from Sebastopol. A little further on is a monument to the volunteers killed in the battle of Ridgeway in the "Fenian raid" a few years ago. At a little distance beyond this are situated the massive buildings of the Toronto University which cost nearly half a million dollars. The main front is about 300 feet long with a massive Norman Tower in the centre. A fine museum and library well repaid a visit to them, and the long corridors and lecture-rooms, examination halls and other apartments gave a fine example of a type of architecture which is not seen, so far as I know, in any of our University buildings in the United States. On the campus, or lawn in front of the building, a company of students were engaged in a game of foot-ball on the Rugby plan. There were evidences on all hands that the training of the body is provided for as well as the training of the mind. More attention is given to athletic sports in the Dominion than in the States. It would be well if more interest were taken by our own young men in such games as foot-ball and lacrosse, both of which are worth more, as a means of physical culture and development, it seems to me, than is our "national game" of base-ball.

In connection with Queen's Park, mention should be made of the suburban district called Rosedale, that includes a beautiful ravine which a moderate expenditure of money in laying out roads and paths would convert into a delightful park which would be unsurpassed in natural attractions by any that I have seen anywhere. A project of that sort is under consideration at present.

In the evening a conversazione was held at the Normal School building, the addresses being given in the lecture hall. A large number of gentlemen and ladies were in attendance. A brief address of welcome was made by Daniel Wilson, LL. D., President

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of the University of Toronto. Prayer was offered by Provost Body, and Dr. C. W. Covernton made a short address on behalf of the Provincial Board of Health.

On behalf of Hon. A. M. Ross, Commissioner of Agriculture and of Public Health, who was prevented from attendance by sudden indisposition, Hon. A. S. Hardy made a very felicitous speech, in which, in the name of the Government, he extended a cordial welcome to the association.

The mayor also made a happy address of welcome on behalf of the city.

The president's address was then in order, and was received with excellent attention and interest. Referring pleasantly to traditions of the past, he paid well-merited compliments to the city of Toronto, and then considered the claims of preventive medicine, and what expectations are justified for the future. There was enough to do, he said, in directions where both science and experience have arrived at some definite conclusions, but advance must necessarily be slow, under the guidance of systematic experiments and observations by scientific methods, and not in the pursuit of the speculations of theorizers. The principal object of scientific enquiry in preventive medicine during the past year has been, he said, as in the preceding year, the study of the infectious diseases and the micro-organisms associated with them. To meet the present needs of sanitary science, the president advocated the undertaking by the general government of scientific investigation of diseases which are so general in their distribution that the whole country is affected by them, or of such character that the satisfactory inquiry into them would involve expenditures too great for the meagre appropriations of state and local boards of health. Some of the investigations carried on under the direction of the National Board of Health of the United States were of the highest scientific merit, and had an acknowledged authority everywhere. The public burden from the victims of the misuse of alcohol was becoming each day greater and more intolerable. He noted various matters affecting the public health, in which a general government can exercise a beneficial control. He spoke of the subject of quarantine, and concluded by calling attention to the great work which could be done by intelligent and fearless health authorities.

The address was a very able one. It had however one fault. If it had not been of great intrinsic interest and made more pleasing

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by the superior excellence of the speaker's elocution, the audience would have been very weary, and the universal verdict was that it was "a little too long."

After the address the company were invited to visit the museum and library of the institution; and in one large room refreshments were provided for all. In the library a series of microscopes were arranged displaying fine specimens of various pathogenic micro-organisms.

WEDNESDAY, October 7.

The morning session was opened with prayer by Rev. Father McCann. A number of applications for membership were reported as approved by the executive committee, and were elected. Dr. Russell, Health Officer of Glasgow, Scotland, was elected an honorary member of the association.

A telegram from Dr. H. P. Gray, chairman of the Montreal Board of Health, was read conveying the best wishes of the Montreal Board for the success of the meeting of the American Association, and expressing anticipations of very much good to the cause of sanitary reform from the meeting; also calling attention to the fact that Montreal cremates all of its household refuse and night soil.

The President was authorized to suitably acknowledge the communication.

Dr. M. C. Van Bibber proposed the following resolution:

"Since it has been proved that the hydrated oxide of methyl, or alcohol, is not a food, nor necessary to the support of human life, but, on the contrary, that its habitual use tends to excess, and that its effects are cumulative and injurious to the intellectual, moral and physical advancement of man, therefore it is proper that the association should declare this as its opinion; and further, be it resolved, that we are in hearty sympathy with those who desire to have its excessive manufacture in its variously mixed compounds curtailed, and the means of dispensing it broadcast among men regulated by the laws of different nations."

The resolution was referred, according to rule, to the Executive Committee without debate.

The paper of Dr. Nathan Allen on "The Relations between Sanitary Science and the Medical Profession" was prosy and uninteresting, and it was a matter of surprise to many that the Executive Committee had allowed the time of the association to be taken up with such a paper.

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Dr. Hewitt presented the report of the Committee on State Boards of Health, including the subject of "inter-state notification on the outbreak of small-pox, cholera and yellow fever."

The following resolutions which had been adopted by the Nation Conference of State Boards of Health were transmitted as a part of this report for consideration by the association:

WHEREAS, It is necessary for the protection and preservation of the public health that prompt information should be given of the existence of cholera, yellow fever and small-pox, be it

1. *Resolved*, That it is the sense of the National Conference of State Boards of Health that it is the duty of each State, Provincial and Local Board of Health in any locality in which said diseases may at any time occur, to immediately furnish information of the existence of such diseases to Boards of Health of neighboring and provincial states and to the Local Boards in such states as have no State boards.

2. *Resolved*, That upon rumor or report of the existence of pestilential disease, and positive, definite information thereon not being obtainable from the proper health authorities, this conference recommend that the health officials of one state shall be privileged and justified to go into another state for the purpose of investigating and establishing the truth or falsity of such reports.

3. *Resolved*, That whenever practicable, the investigations made under the preceding section shall be done with the co-operation of the state or local health authorities.

4. Any case which presents symptoms seriously suspicious of one of the aforenamed diseases shall be treated as suspicious, and reported as provided for in cases announced as actual.

5. Any case respecting which reputable and experienced physicians disagree as to whether the disease is or is not pestilential shall be reported as suspicious.

6. Any case respecting which efforts are made to conceal its existence, full history and true nature, shall be deemed suspicious and so acted upon.

7. *Resolved*, That in accordance with the provisions of the foregoing resolutions the Boards of Health of the United States and Canada represented at this conference do pledge themselves to an interchange of information as herein provided.

Dr. Bryce explained that he had suggested the resolutions, which had been perfected by the committee. He remarked that

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quarantine regulations at the St. Lawrence ports had been perfectly carried out by Canada, and similar regulations were wanted for the North Atlantic ports. It was said that ships were permitted to come into New York and Boston without the necessary quarantine regulations being carried out in regard to cabin passengers. If New York and Boston did not carry out such regulations in regard to cabin passengers, Canada would not do so, because the St. Lawrence route would become unpopular.

These resolutions were referred to the Advisory Board, and with the simple substitution of the words "American Public Health Association" for "National Conference of State Boards of Health" wherever the latter phrase occurs, were approved and recommended to the association for adoption. This action was taken at the subsequent session.

One of the most interesting features of the whole meeting was the account given by Dr. Holt, of New Orleans, in connection with this report, of the work of the Louisiana State Board of Health, and the recent experiences with regard to the cases of yellow fever at Biloxi, Miss.

At the evening session, a paper was read by Dr. David Prince, "An Experimental Study in Relation to the Removal from the Air of the Dust or Particulate Material supposed to produce Yellow Fever, Small Pox and other Infectious Diseases." Large charts were hung upon the wall illustrating the doctor's apparatus, which consists of a device for filtering the air through layers of cotton. The paper had been printed and was distributed to the members of the association present.

Dr. G. B. Thornton next read a paper giving an account of "Six Years of Sanitary Work in Memphis" illustrating by means of charts the character of the engineering problems met with in providing for the sewerage of that city, and explaining in some detail the arrangement of the "separate system" as planned by Col. Waring for the special conditions of Memphis. The results had proven fully satisfactory. Some additional particulars were given by Col. Waring and Col. Haddon.

Dr. Bell, of New York, editor of the *Sanitarian* and chairman of the Committee on Disinfection of Rags presented a quite extended report which was the occasion of some pretty spicy discussion in which sharp words were used by two or three members. The session was prolonged till midnight.

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In the afternoon, a committee of Toronto ladies gave a reception to the lady friends of the delegates to the association in the parlors of the Rossin House, where the largest number of the members were stopping.

THURSDAY.

The third day's sessions were opened with prayer by Rev. D. J. Macdonnell. An invitation was then tendered the association from Mrs. Robinson, the wife of the Lieut.-Governor, for the members of the association to visit the Government House that afternoon, at four o'clock. On account of previous engagements the invitation was declined with thanks. Several new members were elected.

On motion of Dr. Gihon, adopted by a rising vote, a resolution of regard and hearty sympathy was ordered sent to Dr. Thos. F. Wood, of Wilmington, N. C., Secretary of the State Board of Health of North Carolina, and a valued member of this association who was detained at home by reason of serious illness, an aortic aneurism.

Resolutions by Drs. Playter and Gihon with regard to the appointment of a special committee in regard to the securing of purity of water supply were referred to the Executive Committee who at the next morning's meeting presented a modified resolution on the subject which was adopted.

Considerable time was then taken up with hearing reports from the various state boards of health.

Dr. D. E. Salmon, of Washington, D. C., read a paper on "Recent Progress in the Investigation of Hog Cholera." He said recent discoveries showed the disease to be caused by bacteria. Sterilized culture liquid used as an inoculant was found to protect pigeons against the living germs. The experiment had not been yet carried out to a conclusion in regard to protecting hogs. These germs have the power of multiplying in ordinary drinking water, such as is taken from our rivers and streams. A solution of mercuric iodide—proportion one to two millions—was found to destroy the germs. The question arises whether the fluids and tissues of hogs could not be so impregnated with this disinfectant as to render them absolutely proof against the bacteria.

Dr. Sternberg, chairman of the Committee on Disinfectants, said the committee had been unable to meet during the year, and he himself had been unable to conduct any legitimate investigations.

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Dr. Rohé, Baltimore, submitted reports of experiments made by the committee in disinfecting by heat. The use of superheated steam was found most efficacious in destroying contagious matter.

Dr. Holt, Louisiana, exhibited a model of apparatus used in disinfecting baggage from vessels in quarantine at New Orleans.

In the afternoon some forty carriages were placed at the disposal of the members and their lady friends for a drive around the city, the courtesy being tendered to the association by the municipal government. At the City Hall, the guests were formally received by Alderman Defoe, acting mayor. At the University, President Wilson received them, and showed them through the museum and library. The carriages were then conducted out through the Queen's Park and Rosedale to the Reservoir, and back to the city making altogether a three hours' excursion.

At the evening session the exercises were introduced with prayer by Rev. E. A. Stafford.

The committees appointed to award the Lomb prizes for the best plans of dwelling-houses, not to exceed in cost the sum of $800 and $1,500 respectively, with and without cellar, providing accommodation for families of five persons, and the best essays on the subjects of "The Sanitary Conditions and Necessities of School Houses and School Life" and "The Preventible Causes of Disease, Injury and Death in American Manufactories and Workshops, and the Best Means and Appliances for Preventing and Avoiding them," reported that the papers and plans sent in by the several competitors were of so poor a class, that they could not conscientiously award the prizes so generously placed at the disposal of the association.

Dr. P. H. Bryce, Toronto, read a paper on "Decomposition of Albuminoid Substances and some Sanitary Problems connected therewith." He first pointed out that all kinds of animal matter are similar in composition, and that their decomposition results in similar products. This decomposition is due to bacteria feeding upon such substances. It was evident that in order to reduce the number of these latter which cause many diseases, it was necessary to lessen the amount of animal material upon which they feed. This indicated the absolute necessity which existed for inspection, amongst many other things, of our meat and milk supplies. Every animal to be slaughtered should be inspected prior to and subsequent to slaughtering. Not only all milch cows should be inspected

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on the farms and in the stables, but the milk shops dealing in the product, the people who either handle the cows or live in the houses on the farms, as well as those in the milk shops, should be under the strictest supervision. To that end Dr. Bryce urged the necessity of a committee of the association being appointed to enquire into the whole matter during the coming year and to report at the next annual meeting.

"Sanitation in Street Paving" was the title of a paper by Dr. George Baird, of Wheeling, W. Va., which was read by Dr. J. T. Reeve. The sanitary defects of the pavements most commonly used were recounted, and then the author gave an account of a new pavement which has been introduced and tested in Wheeling, and which the author held was free from all the objections made against the other pavements.

The material is a vitrefied paving block manufactured in New Cumberland, W. Va. This block is an oblong, truncated wedge, 9 inches long, $4\frac{3}{4}$ inches wide, $3\frac{1}{16}$ inches on one edge and $2\frac{13}{16}$ inches on the other. It is composed of fire-clay, iron ore and silica fused to a homogeneous mass. The surface of the street is properly graded and rolled, and the blocks are then laid in three or more inches of sand, the broad and narrow edges turned upwards in alternate rows, and the joints broken, as in first-class brick work. The interspaces are then brushed full of finely screened gravel and paving cement pressed on this until they are made completely water-tight. Over the surface of the pavement a layer of pitch and sand about a half inch thick is spread, and a heavy roller is passed backwards and forwards over the pavement until all the blocks are firmly settled in their places, and the entire surface forms a uniform continuous plain.

The advantages claimed for this pavement are the antiseptic properties of the pitch on its surface and between the blocks, the providing of a water-tight cover for the surface of the street, preventing the passage of foul liquid to the surface beneath and furnishing a dry foundation, the absence of depressions in which animal and vegetable matters could lodge and decompose, the ease and economy in cleaning it, its not absorbing any foul liquids, its freedom from noise, and its not being affected by frost or heat. The life of the pavement was without limit, a renewal of the sand and pitch surface, at a cost of only a few cents a square yard, preventing all wear of the block. The cost is not more than cobble-stone,

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much less than wood, less than one-half that of asphalt and not one-third that of granite. The author believes it to be the best pavement yet introduced, viewed from a sanitary and economic standpoint. The cost per square yard, he said, was only one dollar and forty cents.

One of the most enjoyable incidents of the whole meeting was the address of Wm. Russell, Health Officer, of Glasgow, Scotland. He gave a brief statement in regard to the condition of sanitary affairs in Scotland and in some of its chief cities. He showed that he was a man of thorough education and culture, as well as one entirely at home in the work of the sanitary office.

The paper on "Food in its Relation to the Distribution of Wealth," gave the result of a very thorough and careful study of the dietaries of a number of different reformatories and educational institutions, giving details of cost in tabular form. It is impossible to give a correct impression of the paper in any abstract which it is possible for us to present; but the data collected by Mr. Blue, who is secretary of the Bureau of Industries, together with the conclusions drawn therefrom, are a very valuable contribution to the statistical literature of this department of science.

Dr. C. W. Covernton next read a paper by Dr. H. P. Yeomans of the Ontario Board of Health on "The Best Methods and Apparatus necessary for the Teaching of Hygiene in the Public Schools, as well as the Means for Securing Uniformity." The paper was pretty well written, but did not seem to me to have any very apparent relation to the subject indicated by its title.

Col. D. P. Haddon, mayor of the "Taxing District of Shelby Co.," extended to the Association a hearty invitation to hold the next meeting in that place.

Friday morning the concluding session of the Toronto meeting was held. The only paper on the programme was one "On the Abuse of Alcoholics," by Prof. Standford E. Chaillé, M. D., of New Orleans, La. This was read by title and referred to the Committee on Publication. An interesting report from the committee on Diseases in Animals was presented, and the committee was continued and requested to make a further report at the next meeting.

The officers for the ensuing year were then elected, viz.: Geo. M. Sternberg, M. D., President; Chas. N. Hewitt, M. D., Minn., First Vice-President; D. P. Haddon, Memphis, Tenn., Second Vice-President; Irving A. Watson, M. D., Concord, N. H., Secretary; J. Berrien Lindsley, M. D., Nashville, Tenn., Treasurer.

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The usual brief complimentary addresses of the retiring and elect presidents were made, the omnibus resolutions of thanks to officers, committees, citizens, corporations, etc., were adopted, and the Fourteenth Annual Meeting of the American Public Health Association adjourned.

In the afternoon a steamboat ride around the harbor, over the courses of the proposed sewer extension and of the waterworks supply conduit was given by the city officers, this forming a very enjoyable conclusion of the social events of the meeting.

Among the institutions of Toronto which are of interest to a physician, I must mention the General Hospital where I spent some hours very pleasantly.

The institution has a large well constructed building, in which are the general surgical and medical wards, and the amphitheatre in which clinical lectures are given. In a detached building only connected with the larger building by an open corridor, are the wards for eye and ear patients. The lying-in wards are in a building which stands by itself, entirely apart from the main building. They have accommodations for twenty-five patients in the lying-in wards, and for two hundred and fifty in the whole institution. The number in the wards at the time of my visit was about two hundred and twenty, including a number of cases of typhoid fever.

The hospital has quite a considerable endowment, in addition to which the Dominion Government pays forty cents a day for each patient cared for, and the city of Toronto pays thirty cents a day for each patient sent in by the city authorities. Then they have private rooms for the reception of pay patients who choose to avail themselves of the opportunity for greater seclusion than they would find in the general wards. Such patients are at liberty to make choice of professional attendants from any member of the hospital staff with whom they make any arrangement that proves satisfactory with regard to compensation. In case a patient in a private room makes no selection of attendant, the physician or surgeon, as may be, on duty at that time takes charge of the case, and compensation for his services is optional with the patient.

The hospital staff is triple, each set of attendants being on duty four months at a time, taking charge of the patients and lecturing to the students in the hospital theatre. There are two medical schools situated in the immediate vicinity of the hospital. One set of hospital staff attendants is selected from each school, and one set

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from the profession not connected with either school. The hospital staff lecture to the students, not as coming from one or the other school of medicine, but as having taken out tickets which entitle them to attend these hospital lectures, for which they pay entirely independently of their college ticket. The charge for the hospital ticket lectures is eight dollars for one year, or twenty dollars for the four years' course The theatre in which the lectures to students are delivered is exceptionally well adapted for the purpose. It is claimed that it will seat six hundred students, and that every one is so placed as to readily see a patient placed upon the table for operation. It certainly is better arranged in this regard than any other room that I have ever seen. Thanks to the courtesy of Dr. Adam Wright, one of the clinical staff, I had the pleasure of meeting the class of students in their theatre and of giving them a friendly greeting in the name of the profession south of the Great Lakes. In appearance the medical students of Canada are much like those of the States, except such difference as might be expected between classes who must of necessity attend four courses of lectures and those who are rushing through in half that time. Among the students in the hospital theatre I noticed several young ladies who are in attendance as regular matriculants.

The nursing in the hospital is all done by the pupils of a Training School for Nurses, which is conducted as a department of the hospital work and is in a flourishing condition. A large class graduated on Wednesday evening of the week in which the meeting of the A. P. H. A. occurred.

The superintendent of the hospital, Dr. Charles O'Reilly, has been for eleven years in charge of the institution, and has proved a most efficient officer. The system of ventilation in the wards which has been arranged in accordance with his express directions, is most efficient and thoroughly satisfactory.

Thursday evening, in lieu of a public address as an inaugural of the course of medical lectures for the year, the faculty of the Toronto Medical College gave a conversazione to which an invitation was extended to the members of the A. P. H. A. This was attended by a few of the members of the Association, the greater part being occupied with the regular business till too late to go. The absence of these delegates, however, was hardly to be noticed in the throng of ladies and gentlemen who filled the halls and other rooms of the college, and enjoyed the music and other entertainment there provided.

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One of the charity institutions of Toronto in which physicians are interested is the Home for Incurables, of whom some forty or fifty are cared for by the matron and staff of attendants.

The lunatic asylum situated in the extreme western part of the city is the third in size and number of inmates in America. The building is four stories high, and measures over six hundred feet on its front line. Over six hundred patients are now in the asylum.

The impressions received in the stay of a few days in this most flourishing city of the Dominion of Canada, were very favorable ones, both as to the place itself and its medical profession. I trust in the future that occasion may offer for the renewal of acquaintances so pleasantly formed at this time.

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting July 13, 1886. Dr. Williamson, President, in the chair

Colpo-Hysterectomy.

Dr. Funkhouser presented a uterus removed thirteen days ago, according to Schroeder's method, *per vaginam*—a colpo-hysterectomy. About the middle of June he was called to see a woman who was suffering considerable pain. Examination showed the case to be an epithelioma, of the cauliflower type, of the neck of the uterus. The patient was advised to undergo an operation for the radical cure, if such there be, of this disease. She finally consented, and the operation was performed two weeks ago. The patient was a mulatto, 29 years of age. It is remarkable that the disease should occur in the negro race, not so remarkable that it should occur in a person of mixed race. Her age, 29 years, was also very unusual. The operation was performed according to the method of Schroeder, the patient being anesthetized and placed in the lithotomy position. Just at this time there is considerable discussion in regard to the utility, advisability and practicability of this operation. Some consider that it is merely for the time being a relief, that sooner or later the disease is bound to return.

Dr. Mulhall asked if any microscopical examination had been made.

Dr. Funkhouser said that Dr. Alt had examined a specimen, and said that it was an epithelioma of the cauliflower type.

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EPILEPSY FROM PERIPHERAL IRRITATION.

Dr. Mulhall said it had been reported by some observers that peripheral irritation, in the nose for instance, is capable of producing epilepsy. About a year ago Dr. Martin had sent a gentleman to him, and on examination he found that the tissue of the posterior end of the inferior turbinated bone was greatly hypertrophied. He told the gentleman what the trouble was, and proposed to remove it. He at once consented. The gentleman was an epileptic, and during the operation, which was performed with a Jarvis wire snare, the doctor remarked that it would be curious if removing this growth should cure his epilepsy. During the operation he lost twelve or fourteen ounces, perhaps a pint of blood, as he wanted the doctor to let him bleed within reasonable limits. He went away that evening, and he wrote from Illinois two weeks after that he had had no epilepsy. However, the doctor determined to wait long enough to see whether there was a cure of the epilepsy by this operation. Four months after the operation he wrote, stating that his fits had returned with equal violence, and at the same time stating that his nasal symptoms had not returned. This case shows how very important it is not to publish a case of cure until time enough has elapsed to verify it.

Dr. Bremer said that the case of Dr. Mulhall belonged to the same category as those cases where removal of the ovaries was undertaken with a view to cure epilepsy. It was found in the course of four months, six months or a year the old trouble would come back again with undiminished vigor. He had had a little corroborative experience. A woman had become epileptic in her fortieth year. He regarded it as due to syphilis, simply because when epilepsy makes its appearance in later life, say after 40, it is presumably, perhaps in ninety-nine cases out of a hundred, due to syphilis of the brain. He treated her with iodide of potash and inunctions, but she did not improve a particle. He had overlooked, when he commenced the treatment, that she had a distinct scar on the little finger of the right hand from a burn she had received several years before. He cut out the cicatrix, and the fits of epilepsy ceased very promptly, and without medication, for about five months, when they returned. This woman was of a highly nervous temperament, and seemed to have implicit faith in the operation; that, doubtless, had something to do with it. At the same time, after four months, she complained of such uneasiness and such a feeling of

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malaise that she wished she had her epilepsy back, and begged for something to bring it on; she could not stand it any longer, she longed for her fits. It was as if there was a certain amount of pent up nervous force which must be discharged in order to produce a mental and physical equilibrium. He gave her strychnine, and that failed. He then told her to drink whisky until she was full, and that brought on a fit; and now she has fits once a month and is very well satisfied.

Dr. Bryson was sorry that Dr. Mulhall was not successful, but the fact gave him some comfort. He had never obtained those brilliant results so often reported in the journals from the removal of peripheral causes of nervous manifestation; they are misleading in prognosis. Some years ago three or four cases of circumcision were reported by a member of the society performed for the relief of vague, uncertain, anomalous abdominal pains, and all followed by relief. It seemed somewhat embarrassing then to have to get up and state that he himself had obtained no such results.

About a year ago a boy was brought to him, aged about 10, with a very tight foreskin with adhesions down to the meatus. He had gradually within a year developed symptoms of epilepsy, the fits occurring about twice a week. Following the general plan recommended, he circumcised the boy, broke up the adhesions and removed the redundant foreskin; healing took place and everything went well for three or four weeks, and then the fits returned with equal violence and have been growing gradually worse.

Five or six year ago a boy was brought to him, who had been to a very distinguished New York surgeon, of world-wide reputation, who had violently torn away the foreskin, split it up with his thumbs, with the intention of curing what he called a spastic spinal curvature. But it didn't do it. He saw the boy about two months afterwards, and removed from the bladder two calculi which had evidently been overlooked. He didn't know how the spinal disease progressed after that. All that he could make out from the history given by the mother, a very intelligent lady, were symptoms connected with the bladder, really vesical tenesmus, such as we ordinarily have at the end of micturition in cases of stone.

Last winter he saw a child who was circumcised for nocturnal and diurnal incontinence of urine. The boy was observed several times during the day to make pressure on the perineum with any object in reach. He would run and throw himself across the cor-

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ner of a chair. He would not lose consciousness, but would throw his head back a little, a tremor would pass over the body, and he would then recover, and it was generally found that he had wet his clothes in this maneuvre. In a careful examination Dr. Bryson noticed that the clothing was stained with blood. A good sized sound for a boy of that age passed into the bladder, and the penis was unusually large, which led him to suspect stone. He made several searches for calculi, and frequently struck something that gave a dull sound, with the stone searcher, but feared it might be some bone of the pelvis, as is not infrequent. Finally he determined to lay open the bladder and put in his finger, and he then found an encysted calculus which he removed. The boy recovered from the operation well enough, but still has nocturnal enuresis, though the diurnal enuresis has ceased; but the nervous spasms come on, and he is inclined to suspect that it is really a form of masturbation, and that there is really a sexual orgasm.

So when a patient comes with an epileptic child, with a narrow, adherent foreskin, and wants to know whether circumcision is going to accomplish a cure, he now says that he don't know. He thinks we would be less willing to promise cures, if we would wait a sufficient length of time to enable us to observe with a fair degree of certainty whether or not a disease for which an operation had been undertaken was going to be cured thereby or only relieved. He recollected a case where hystero-epilepsy was cured, not by a removal of one or both ovaries, but by making an incision through the skin, having anesthetized the patient and put her to bed, telling her the ovaries had been removed. Mental impression has a great deal to do with it.

Dr. Funkhouser reported a case of epilepsy in a child first seen two and a half years ago, sometimes having an attack twice a day. The foreskin was adherent to the glans. He explained to the parents that perhaps an operation might cure the child. The patient improved for perhaps about a month, when the attack returned. But the doctor began to think, after seeing him in several of these attacks, that he was making believe in some of them; because while prior to the operation he would fall without regard to the surroundings, afterwards he would generally select a soft place to fall in. He would have one of these epileptiform attacks when he wanted anything. Under treatment with bromides he finally got better, and within the last year he has not had an attack.

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Dr. Leete asked the age of that boy that Dr. Bryson spoke of in whom he found an encysted calculus. The doctor had stated that perhaps there was a feeble orgasm in connection with the behavior of the child; he questioned if his age was such as to make that probable.

Dr. Bryson said he was eight or nine years of age; and that children are capable of venereal orgasm at a much earlier age than that.

Dr. Williamson thought that while some physicians are disposed to report cases too soon, without waiting to ascertain the ultimate result, there are yet a great many cases of peripheral irritation that can be relieved if properly diagnosticated. He had seen quite a number of cases where positive and permanent relief followed circumcision. Some four years ago Dr. McPheeters had requested him to see a boy 12 years of age, quite a vigorous fellow, who was having nightmares, nightly emissions (!), and all that kind of thing. The foreskin was very tightly binding the glans, and was adherent. He performed the operation and found a very tight ring behind the glans and removed that. After recovery from the operation the other symptoms had disappeared as well. If these cases are properly diagnosticated, he believes that they can be relieved by this operation. Sometimes the hyperexcitability is not due to a constricted glans, but if this is the case he believes circumcision will relieve it. St. Vitus' dance will sometimes come on as the result of masturbation. Why is it not possible by removing this peripheral or local excitability to relieve the condition entirely?

Dr. Bryson did not wish to leave the impression that he declines to circumcize children. He would recommend it in every case where there is an adherent tight foreskin. He related the case of a young man employed in the postal service, 26 years old, and who came to him four years ago. This man masturbated, sometimes twice a day, and had done so for a number of years. He declared that he didn't do this for the production of a pleasurable sensation, but to relieve certain disagreeable conditions which masturbation would cause to pass away. He would go to bed with every intention of refusing to masturbate, but would lie and toss on the bed, becoming weak and irritable, and finally would masturbate in order to go to sleep. Immediately on bringing about the sexual orgasm he would drop off asleep. That was something like Dr. Bremer's case of bringing on epilepsy again for the relief of the nervous system.

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Many of these cases he regarded as clear evidences of nervous disease.

Dr. Funkhouser questioned whether masturbation produces epilepsy or insanity. The growing opinion, he thinks, is that in the majority of cases the patient has a predisposition to nervous trouble, though there may be an exciting cause, such as a tight foreskin, which brings about epilepsy or insanity sooner than it otherwise would occur.

Dr. Bremer said that as to the relation between masturbation and insanity he concurred with the opinion of Dr. Funkhouser. He believed that some masturbators are born so, and others acquire masturbation by imitation, by example and so on. Instances are on record where children of two or three years old, that had been surrounded with the most healthful hygienic influences, and where there was no possible source of moral corruption, masturbated because it was in them, because there was such an irritable state of the spinal canal, and especially of the genital centre. Some French physician has divided masturbators lnto cerebral and spinal masturbators. The proportion of insane patients that masturbate is very great; but it would be very wrong to think that all of them went insane from masturbation. They had an insane temperament; their brains were deformed; there was a mental stagnation. It is a well known fact that among the negroes such a thing is quite prevalent. Negroes of very little intellect but with powerful animal passions, will run amuck masturbating, or outrage the first female they find. This condition to a minor degree exists of course in other races; and especially in the insane: in the mentally weak it is very frequently found. Such individuals have a spinal irritation, and in consequence are forced to masturbate. Every act of masturbation is at the command of the genital centre in the lumbar portion of the spinal canal, and every act of masturbation increases the excitability of that centre, and in this way the evil constantly increases by the peripheral and central irritation.

Stated Meeting Sept. 7, 1886. Dr. Jas. M. Leete, in the chair.

Cyst of the Chyle Duct.

Dr. Carson presented a very remarkable and interesting specimen of chyle, removed with the aspirator from a tumor in the abdomen of a male patient who had consulted him. For report of case, see p. 396.

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In answer to a question by Dr. Homan, Dr. Carson said it might be a dilatation, but he hardly thought that with a dilatation of the duct due to occlusion, the patient would remain well nourished, for that would show a very decided accumulation in the duct and an interference with the circulation. The well nourished condition of the patient led him to believe the tumor to be a cyst, one or more of the coats of the duct having given way.

Dr. Homan asked if he had emptied it thoroughly.

Dr. Carson answered that he did not remove more than one half of the fluid; as much if not more remained behind.

Dr. Nelson asked Dr. Carson upon what he based his opinion that there is not complete occlusion.

Dr. Carson said he based his opinion upon the fact of the patient's general good condition. If there was complete occlusion, the patient would die of inanition, and the distention of this sac would be much greater than it is in five months.

The patient's appetite is good. He is a little pale but says he feels all right and is in his general good health.

Dr. Gregory said the tumor certainly seemed to be a cyst, and it certainly contained a fluid which looked like milk. But the thought had occurred to him whether we might not mistake emulsified fat for chyle. Oil cysts, or cysts containing liquid fat are mentioned in most of the books which treat of cysts, and might there not possibly be some emulsifying agency formed by cell action to blend with this fat and convert it into a milky fluid? The amount of nutrient material contained in such a cyst, supposing it to be chyle, ought to affect the nutrition of the body by its withdrawal.

Dr. Homan asked if Dr. Senn in his letter did not suggest that it might be a dilatation of the lacteals of the mesentery causing this liquid.

Dr. Carson said that he did.

Dr. Homan said that would be an accumulation of chyle just the same.

Dr. Carson said that cysts of the mesentery are found, but the fluid from these presents altogether another appearance, and it coagulates; it is not chyle. He did not think it possible that this is a fatty cyst. Here there was an emulsification of the fat which occurs only in chyle; very finely emulsified fat, some of the globules being so small that it is impossible to measure them. The situation of this tumor, the position of the pedicle corresponding to the situ-

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ation of the thoracic duct, pointed almost conclusively to a tumor having its origin from that duct, whether due to a rupture of the duct and an encysted dropsy, or to a cyst of the thoracic duct. The exact condition will never be determined positively until the abdominal cavity is opened after the death of the patient or for the purpose of diagnosis, if he is willing to permit such an operation.

Dr. Leete asked if the mobility of the tumor was such that he could appreciate the pedicle pretty well.

Dr. Carson said he simply got the idea from moving the tumor. He could get his hand pretty well under the tumor in all directions, and through the rectum could carry his finger up pretty well under its surface and over the lower border.

Dr. Leete thought that it would be extremely interesting to have a specimen of this fluid examined very soon after it was removed, when it was fresh, and put through the same sort of examination that experimental physiologists put chyle through in their study, to see how nearly it corresponds with the chyle of such animals as have been studied.

Dr. Carson said that this fluid was examined a very short time after it was removed, by Dr. Tupper. He made a very careful microscopical examination of it; it was also examined by Dr. Todd the next morning, and one or two parties tasted it the next day.

Dr. Homan asked how soon after eating it was drawn.

Dr. Carson said the man had his breakfast at eight o'clock in the morning, which consisted of a roll and a cup of coffee, and he withdrew the fluid between eleven and twelve o'clock.

Dr. Homan said that in Foster's physiology the statement is made that after fasting the contents of the thoracic duct are clear and transparent, but shortly after a meal it becomes milk-like and opaque.

Dr. Carson said that all physiologists do not agree upon that point. It has been stated that after fasting the contents of the thoracic duct are not so thick and full of fat emulsion as after a meal—that is, some time after digestion has commenced; some aver that the thoracic duct is never free from fat and that peculiar appearance which is said to be characteristic of it.

Dr. Homan said it seemed that the term lymph was applied to the contents of the thoracic duct because it was often rather clear and transparent, rather than milky and opaque, and it seemed that the presence of emulsified fat after a meal causes this milkiness and opacity.

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Dr. Leete asked if the patient had observed that this tumor was less tense several hours after eating, than during the process of digestion.

Dr. Carson said he had not noticed any difference. The patient says the tumor sometimes feels a little heavier, and is more distended than at other times, but there seems to be no regularity about it, nor did he notice particularly whether it was after meals.

He had advised against any operation at present; he said that if the tumor became tense and appeared to be in danger of rupturing, he would draw off the contents; or, if it caused him discomfort, and seemed to threaten his life, or became so uncomfortable that it made life a burden, then he might consider the propriety of opening the abdomen, with the hope that something might be done to relieve this discomfort and danger. But if that was the case, and the cyst had to be opened, he thought it would kill him very soon; in other words, that he would die of inanition; and that it was not an operation to be thought of at all, unless his condition became very extreme.

Dr. Leete thought this case a wonderfully interesting one, in view of the small size of the thoracic duct at its origin, and the fact that the walls of the vessel are extremely delicate. We do not know anything about a corresponding enlargement of the arteries occasioning so little discomfort as this man suffers; and if there was an enlargement of any artery in the body, we would expect a rupture at any time, or rather that it would rupture before it became such a size.

Dr. Carson said that several cases of dilatation of the thoracic duct were recorded, which had been found *post mortem*, where the size of the duct had become increased throughout, and the walls of the duct had become thickened.

Dr. Leete said that those were *post mortem* appearances, however, and there was probably a history showing an inflammation running through weeks and months. This man's health is good and it is hardly possible that there is an inflammation there such as could result in the thickening of the walls.

Dr. Gregory said that this thickening of ducts is not the result of inflammatory action, but simply a growth, or a hyperplasia of the duct tissue.

Dr. Leete said there might be a branching, one branch swelling while the other had continued to perform its function of conveying the chyle to its destination.

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ST. LOUIS MEDICAL SOCIETY.

Stated Meeting.

Dr. Williams reported the following case:

A child twelve months old was brought to him by its mother, who said that it had been deaf since four months old, at which time it was very sick with supposed disease of the brain. Judging from the mother's history, the child had had cerebro-spinal meningitis. Whenever a person becomes totally deaf from any cerebral trouble so supposed, he attributes it to cerebro-spinal meningitis, never having seen total deafness follow an ordinary inflammation of the brain or its meninges.

Dr. Wolfner said that about two months ago he saw a chambermaid with a tumor about the size of a hemp seed, located on the lower part of the iris, with some adhesion to the capsule of the lens. Girl said tumor was of three months growth, which he doubted, as instillations of a one grain solution of atropine readily broke up the adhesions.

The girl said that she was virtuous; nevertheless he put her on a specific treatment, and in a month or six weeks the tumor was gone, leaving only a small speck of pigment on the capsule of the lens. Non specific tumors usually grow and finally destroy the eye.

Dr. Williams said that syphilitic tumors of the iris are quite common. Absence of specific history is no proof that they are not of such character. He always gives his patients the benefit of the doubt, but does not tell them so. There are many ways in which an innocent person can contract syphilis.

Dr. Dean said that speaking of contracting syphilis otherwise than in the usual way by intercourse, reminded him of a gentleman who said syphilis had been communicated to his whole family from a servant girl who kissed the baby, which in turn was kissed by the mother, and in this way the whole family was contaminated.

Dr. Hurt asked if it is not true that the remedies to which syphilis is most amenable will prove beneficial in cases that are not syphilitic. What remedies could be used with more confidence in non-specific iritis than mercury and iodide of potassium?

Dr. Meisenbach recently met a gentleman from California who said that there were in that country Chinese doctors of large practice who treated syphilis quite successfully. The materia

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medica of the Chinese is quite crude in its nature. Was not syphilis after all a self-limited disease ?

Of late years, remedies of vegetable origin had been vaunted as having anti-syphilitic properties, yet clinical experience taught us that we could not get along well without mercury or iodide.

Dr. Mooney stated that a gentleman who had been a missionary in a clinic told him that the Chinese had used mercury for a long time in the treatment of syphilis.

Dr. Williams said a few days ago he treated a young girl who was syphilitic; she had a varicose condition of the veins of the upper lip. When a small girl she had received a blow on the lip which caused the present condition. He compressed the veins with a ring forceps, and then used chromic acid applied to the blood cavity, curing the patient.

Stated Meeting Sept. 25, 1886.

Dr. Stevens being present for the first time after two years, remarked that he had been connected with the profession and with this society for some forty years. He saw present but few of the number who were here when he came into the society in 1842.

When president of this society he said in his valedictory that the average life of a physician was twenty years, yet for twice twenty years he had known the profession in St. Louis, and had always taken part in the discussions of this society with pleasure and profit.

The eight or nine years spent as superintendent of the Insane Asylum had been among the happiest years of his life. He thought himself by nature fitted for such an occupation.

He said he looked upon the insane as unfortunate beings, and treated them with kindness, and this had been the source of his happiness.

When the mayor spoke to him of his successor, he said: "In the first place, appoint a man of professional standing, and on a par with this consider his personal and moral qualities."

Dr. A. Green said a gentleman present had just told him that he had been dangerously ill with pneumonia, that his friends thought he was going to die, but that he had recovered without taking any medicine. This gentleman is one of our oldest physicians. He was sick for six weeks, a very strange circumstance for a case of pneumonia.

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He noted the wide difference among the profession in regard to the treatment of pneumonia, some following an expectant plan of treatment, whilst others are in favor of more liberal medication. A year ago, one of our physicians said so many died of pneumonia because they were not bled. Pneumonia is an infectious disease, and whenever we have a high temperature it is a symptom of infection.

Malaria often simulates pneumonia, and if you use remedies that cure malaria, you cure the pneumonia. He could not see why we should not give quinine in pneumonia in rational doses.

Dr. Stevens said he did not suppose that his case of pneumonia was going to give rise to any discussion. He did not take any medicine except a little morphine and stimulants. He thought the reason he recovered was that he had a firm will and was determined not to die. He did not refuse the medicine because he had not full confidence in his attending physician. There is no disease in which there is a greater difference of opinion as regards treatment than pneumonia. He did not know that we treat it with any more success than did physicians forty years ago. His plan had been the expectant plan of treatment. He treated the disease almost altogether with sedatives.

Dr. Mudd said he had the honor to see Dr. Stevens when he was sick with pneumonia, and he did take very little medicine. All that he suggested was a little quinine and digitalis, and he took him a bottle of good whiskey which Dr. Stevens did not decline to take. When he first saw him, his temperature was high, with rapid pulse and respiration. The next day temperature, pulse and respiration were worse, and he thought he was going to succumb to the disease, but in a few days he began to get better, and finally recovered. He thought it was pneumonia without malarial complication. It seemed as irrational to him to assume that pneumonia will run its course in a prescribed time, as it would be to assume that any inflammation will be limited to a definite time. In a patient whose vitality is well sustained, the process may run its ordinary course, but in one in whom the exudation in the lung tissue is not rapidly absorbed, and nutritive processes not quickly resumed, it may take weeks to restore the patient to health.

Dr. Stevens was satisfied that his long and slow process of restoration was not due to malaria, but that the products of congestion and inflammation were removed very slowly, and this was the reason for his remaining in bed six weeks.

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Dr. Hurt said when this infiltration takes place it is gotten rid of in one of two ways: First, by absorption; secondly, by suppuration. So long as this firm adventitious tissue exists there will be fever.

Notwithstanding, the new doctrine of phthisis, he could not help thinking that Niemeyer was not very far from right when he made a distinction between inflammatory and tubercular phthisis. He believes in a chonic pneumonia which will run a course with symptoms so analogous to phthisis that it is difficult to differentiate them.

Dr. Green said the time has passed when we cannot distinguish chronic pneumonia from tuberculosis.

By microscopic examination we can determine definitely whether it is chronic pneumonia or tuberculosis.

Dr. Bremer said that in treating a case of pneumonia or discussing it we must always make a difference between pneumonia in infants, in adults and in old age.

In infants there is no such thing as croupous or fibrinous pneumonia; with them genuine pneumonia is always of a catarrhal variety.

The micro-organism that produces this form of pneumonia has not yet been discovered. Catarrhal pneumonia in infants often terminates in phthisis. It is also well known that the catarrhal pneumonia of adults gravitates towards phthisis. He believes that the genuine pneumonia of adults, as it is termed, occurring between the ages of 20 and 40 is best treated by the expectant plan. He does not see what medicine can do in such a typical disease as pneumonia, which usually runs a course of nine days, as a rule. Abortive cases terminate on the third, fourth, fifth or seventh day. Some author has stated that no man should die from simple uncomplicated pneumonia. It is a disease that under ordinary circumstances cures itself. He thought it a question if antipyretics benefit a patient.

Dr. Bremer said that Dr. Linton taught that fever was a curative process; it seemed to him to be so when he heard Dr. Linton's lectures, and he believes that there is something in it now, that the fever is necessary to kill off the micro-organisms. The micrococci of chancroid retain their vitality up to 101° F. Those exposed to 102° may be inoculated, but there will be no chancroid produced.

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If the temperature does not rise to 104° or 105° he does not see that any antipyretic treatment is indicated; we can readily reduce the temperature, but what good does it do? Does it make the patient feel more comfortable?

Last year he had an insane, strong young woman with pneumonia. She would not take any medicine, it was a mild, but typical case; she got well on the seventh day. Pneumonia in the aged in the majority of cases requires free stimulation. One word about the antipyretic craze in all its phases—the cold water treatment of Brandt in typhoid fever has passed out of date notwithstanding its efficiency—so it will be with antipyretics. He did not mean to say that antipyretic treatment is valueless, but that it is overdone in infectious diseases.

Dr. A. Green understood Dr. Bremer to say that high temperature is a curative process, because it kills the micro-organisms. To sterilize certain infectious fluids a temperature 110°—120° is necessary; there are germs which a temperature of 140° will not destroy. If the fever attained a height far below that necessary to kill these germs, the patient would certainly die. He would not believe in the curative effect of a high temperature even if Virchow said so.

Dr. Bremer said he would not agree with if it Virchow said so. He spoke of a hypothesis not a fact, and he thought he was understood correctly by the majority present. The hypothesis was an idea of the late Dr. Linton; and in support of this hypothesis he himself said that in at least one kind of virus a temperature of 102° killed these micro-organisms, viz., in chancroid. He was well aware that there are micro-organisms that 250° will not sterilize, because it will not kill the spores. He recalled the teachings of Dr. Linton to pay homage to the memory of a man who had a bright view of medical subjects, and who was a fore-runner in telling a very important truth; a truth which has almost become verified in our present day.

Intubation of the Larynx.

Dr. Mudd presented a child which had been brought to the clinic to-day with croupous laryngitis, and suffered much from labored respiration. The lips were bluish, there was a marked pitting of the sternum at the ensiform cartilage. He saw that the tient would not live two hours. He suggested tracheotomy, but, the mother refusing, he sent for intubation of the larynx instru-

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ments. It was the first time he had used the instrument or seen the tube in operation. It was apparent that respiration was easy. He wanted to bring this case before the society particularly because there are many who still oppose tracheotomy. When Dr. Hodgen first took issue in favor of the operation, he did it in opposition to the profession very largely, and to the laity. The first thirteen cases died, the fourteenth recovered. At the time of his death, he had operated seventy to eighty times with fourteen recoveries.

He himself had had about fifty cases with nine or ten recoveries. He had never discriminated whether the trouble was croupous laryngitis or diphtheria. The more he has seen of these cases the less confident is he to say definitely that the operation is going to bring about a good result.

Considering the uncertainty of the operation and the prejudice against it, the profession have looked with interest to reports of intubation of the larynx. He must admit that he had some misgivings as to intubation, being afraid that he might detach some portions of membrane or push plugs into the tubes, and the child in its feeble efforts at respiration be suffocated. The mother objecting to tracheotomy in this case, he determined to try intubation. The operation was not difficult; the tube was easily introduced into the larynx, and on its introduction the respiration was relieved. Taking the dangers of tracheotomy into consideration, if we can use intubation as a substitute, it will be a great boon.

Dr. Porter does not believe that intubation will entirely take the place of tracheotomy. In a number of cases after intubation the patient had died of pneumonia, and Dr. Ingals, of Chicago, has lately stated that this result is produced on account of the larynx being kept open by the tube. Portions of the food find their way into the trachea and set up inflammation of the lungs. He allows his patients to take nourishment only when lying on the side. In the first case of tracheotomy he ever performed, the patient had erysipelas of the larynx afterwards; the first case of the kind in this country. He always performs tracheotomy with misgivings. He believes that diphtheria treated early will avoid the necessity for tracheotomy. Some cases, even under the care of a physician from the first, will become dangerous, but he is convinced that the earlier a case is seen and treated, the less frequently they become dangerous.

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Stated Meeting Oct. 2.

Dr. Dalton presented a specimen of rupture of the heart. The patient was admitted to the City Hospital, Saturday, Sept. 25. He stated that he had been sick for seventeen years. The present illness came on four days ago, with sharp, steady pain about the third rib above and to the right of the left nipple. The patient worked very hard the day previous. Examination of the thorax revealed no abnormality. Respiration a little more frequent than normal.

Sept. 26. Patient same except more frequent respirations.

Sept. 30. Patient feels much better. During afternoon patient went on the water closet, and while at stool fell over dead.

Post mortem thirty-five hours after death. Thoracic viscera; old organized adhesions of pleura anteriorly; 600 cc: clotted blood and blood serum found in pericardium; opening wall of left ventricle 1 cm. from coronary vein; a canal leads into left ventricle opening on its outer wall 1 cm. from ventricular wall. About this opening the ventricular wall is thin and friable. At an obtuse angle to this canal, and adjoining at external opening is a second canal which opens into right ventricle between the columnæ carneæ. Heart weighs 550 gm. It is enlarged, very soft, flabby, and pale in color. There were adhesions between the liver and diaphragm on the right side, and of pleuræ anteriorly. There is fatty degeneration of heart, liver and kidneys. The patient was 62 years old. The left ventricle was hypertrophied. There was some straining at stool when the rupture occurred.

Dr. Bremer stated that this case reminded him of a supposed rupture of the heart that occurred in Belleville, where a coal operator was caught between cars. The diagnosis was rupture of the heart; but to the discomfiture of the physician the patient recovered. The question is, can a patient with rupture of the heart get well? There are cases recorded of animals with bullets in their hearts. He believed that cases of traumatism do recover. The case before us is one of brown atrophy; and the possibility of recovery is excluded. Brown atrophy occurs frequently in the aged; and death may take place by rupture during defecation as in this instance.

Dr. Bremer remarked that Dr. Dalton had stated that no microscopical examination having been made, it may be a case of fatty degeneration. It would have been interesting to know the antece-

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dents of the patient, if there were any neurosis of any kind—whether he had been short of breath habitually, or had fainting spells, which symptoms are characteristic of fatty degeneration or brown atrophy. This was the first specimen of ruptured heart that he had seen. It is a rare occurrence.

Dr. Dudley said that while he was coroner, he saw a case of perforation of the heart by a pistol ball. The patient was admitted to the Sisters' Hospital. He had been shot on the Iron Mountain Railroad, 125 miles south of here, and was removed here without extra precautions. He lived four or five days after he came to the hospital. Post-mortem showed that the ball had penetrated the left ventricle, had passed through one wall of the heart and lodged in the other.

Dr. A. Green failed to see how straining at stool should cause rupture of the heart, for in straining the glottis is closed and diaphragm pushed down upon abdominal contents, and could not see how this could affect the heart so as to cause rupture.

Dr. Bremer thought this very easy to understand. During the act of defecation the abdominal walls are contracted and compression of the aorta occurs, which, of course, throws a greater strain upon the heart, which in a pathological state ruptures readily; under the same circumstances rupture occurs in miliary aneurism of the brain, being the classical injury of common apoplexy.

Dr. Dudley requested Dr. Maughs, who had just returned from abroad, to give some of his experience.

Dr. Maughs expressed great pleasure in meeting old friends, and thought it would interest the society to hear of the latest, the Pasteur craze. He had the good fortune to attend the clinic of M. Pasteur, introduced by his friend, Dr. Warren, Bey. He saw in the clinic one hundred patients treated for mad-dog bite. The treatment consists in injecting into the cellular tissue of the abdomen by means of an ordinary hypodermic syringe a milk-like fluid. The quantity was about half a dram for adults, less for children, and 15 drops for infants. The operation was done by Pasteur's assistant, he standing by. What was the milk-like fluid? This, to the practical physician, is the all absorbing question. The nature of this fluid M. Pasteur had kept a secret. Perhaps Pasteur is afraid that the unskilled might attempt to prepare this fluid, and bring it into disrepute, and that when he has perfected it he will publish it to the world. Is this process a cure for rabies? Dr. Maughs fears

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not, for it has not been proven; it must stand a more rigid test. Six months ago Pasteur had treated 1050, and only a few of these have died of rabies. Of the nineteen patients sent from Russia who had been bitten by a mad wolf, some six or seven died at Paris, and one or two since their return. This frightful mortality scared Pasteur, and he insisted that there was a difference between a dog bite and a wolf bite.

In considering this so-called wonderful discovery, in the first place not one in a dozen of the reputed mad-dogs is really mad; like men dogs have fits and become erratic, and as it is their natural instinct to bite, this condition will exaggerate this natural instinct; they bite alike friend and foe; not one of a dozen bitten by rabid dogs ever go mad, and many of these do so by the profound nervous impression on the individual. The efficacy of Pasteur's treatment is that it convinces patients that there is no further danger, and that they have undergone a specific treatment.

M. Pasteur in person is about 65 years of age, some five feet, six inches tall, heavy set, with iron grey moustache and inflexible will. If his discovery is true it is impossible to over-estimate the importance of this remarkable work.

Dr. Dudley asked if there has not been a similar institution established in New York, under the direction of Pasteur.

Dr. Maughs said no. There is none other than at Paris. M. Pasteur was solicited to establish one in New York, but he absolutely refused.

Continental Surgery.

Dr. Gregory said he would like to have Dr. Tuholske give us some of his observations while abroad.

Dr. Tuholske said he first visited Berlin and found a wonderful change since he was there five years ago. He found there a most wonderfully complete hospital. All the operations are done according to the most stringent antiseptic precautions, and he is convinced that one who does not make use of the antiseptic system discards a most powerful agent. The only advantage one has in going abroad is in coming in contact with the representative men, seeing their methods, and forming an estimate of their characters. One of the striking features in going through the surgical hospitals of Berlin is the number of arthritic cases, deformities of bones and the numbers of operations for resection of joints, such as hip, elbow, knee and ankle. The operations are not the typical ones laid

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down in the text-books; they aim simply to remove the disease. Bichloride of mercury is the antiseptic par excellence, used externally on the parts to be operated on, and on the hands of the assistants, but a mild solution of carbolic acid is used for dressing. Iodoform has held its own, and while iodoform is not an antiseptic for everything, we know exactly what it should be used for. Wounds are dressed without suturing, and discharges are received in the dressings. The first dressing is removed after two days and the wounds drawn together with sutures, and the wound heals as readily as if the parts were coaptated on the first day. He was surprised by the fact that a wound may be treated in this way and unite by first intention.

Stone is removed from the bladder by the supra-pubic method, and has the greatest number of advocates among those who cut. Union is by first intention, and no fistulous opening remains into the bladder. Bergmann is the strongest advocate of this operation. Bergmann treats hydrocele by removing the tunica vaginalis. It is a very considerable operation. Non-operable tumors are treated by inoculating the tumor with erysipelas. In cancer of the mamma the custom is to extirpate not only enlarged axillary glands, but to remove any gland that may be found, enlarged or not.

For floating kidney Hahn has introduced a method of fixing the kidney by cutting down upon the organ and sewing it into position. He has operated four times successfully. Dr. Tuholske saw Schroeder make forty laparotomies in the short time he was with him. Extirpation of the uterus through the vagina is done often. Gusserow makes a large number of operations. Martin is operating all the time. Schroeder is slow and careful; Martin is the opposite; he is bold and aggressive. In operations the most minute precautions are taken. All who attend must be perfectly clean and have clean clothes. Martin required us to remove coats and vests and put on slippers.

Schede, of Hamburg, allows wounds and resection cavities to remain filled with blood, which is contrary to our teaching, yet he seems to have no ill effects follow. Probably this blood does not undergo decomposition, but it seems a dangerous experiment at all events. Tait has a method of skin grafting which is peculiar. We have been in the habit of following the manner recommended by the late Dr. Hodgen.

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Tisch's method differs in his taking longer sections of epidermis and covering all of the surface completely.

He was struck by the appearance which resulted in some of Bergmann's successful cases. In a woman who had lupus of the nose it was necessary to scrape the lower part of the nose so that only the skeleton was left. He allowed granulations to spring up, and after a while made the skin grafts after Tisch's method. It presented a striped appearance like a leopard's skin, and healed in a remarkably short time.

In Philadelphia about one-half the domiciles have bath-rooms and more than one-quarter have water-closets.

Dislocated Liver.—Referring the case reported by Dr. Papin to the Obstetrical and Gynecological Society (vid. Sept. Courier), Dr. A. H. Garnett, of Oswego, Kan., calls our attention to a report by Dr. A. Y. P. Garnett, of Washington, D. C., published in the *American Journal of the Medical Sciences*, Jan. ,81, and entitled, "Accidental and Sudden Dislocation of the Liver, with Recovery."

Cocaine Addiction.—Mr. Editor: If any reader of your journal has met with a case of cocaine addiction and will send me the fullest details at his command, I'll thank him for the courtesy, reimburse him for any expense incurred, and give him full credit in a coming paper. J. B. Mattison, M. D.

Brooklyn, 314 State street.

Members of Missouri State Medical Society who have not received the volume of Transactions for 1886, are requested to notify the secretary, Dr. J. C. Mulhall, No. 2305 Olive St., St. Louis.

Physicians in the United States.—Polk's directory gives the total number of physicians in the United States as 85,671, of whom 2,432 are women. Allowing for the increase in population since the last United States census, this would indicate that there is one physician for each 650 of population. Maryland has a physician for each 329 inhabitants, Colorada one for each 341, Indiana one for each 396, Oregon one for each 353. All the remaining states have over 400 inhabitants for each physician. New Mexico has 1,494 for each physician. Utah has 1,035, North Carolina, 1,029, South Carolina, 1,084. There are fewer physicians in proportion to the number of inhabitants in New England than in either the Central or Western States.

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FOREIGN CORRESPONDENCE.

LONDON LETTERS.

LONDON, September 11, 1886.

DEAR DOCTOR.—Your kind suggestion to me, before I left St. Louis, to write anything of interest to you, occurred to me the other day while I was present at an operation. The operation was so interesting in itself and so well performed by the operator, Mr. Charles Stonham, F. R. C. S., that I was induced to make note of it. I hereby send you a report of it, which, if you deem sufficiently interesting, you may use for publication.

HISTORY.—Patient, a lad of 15 years. The exact date of beginning of present trouble is not definitely known. His family history is good. At present there is great difficulty in breathing; very loud snoring at night, and a very troublesome epistaxis, occurring about three or four times a week. Both nostrils are completely blocked, breathing being possible through the mouth only. The general health otherwise is good.

PRESENT APPEARANCE.—By probing through the anterior nares one could feel on each side a mass filling up the posterior nares. By examination with speculum and probing, one could easily see and feel, that the growth was not attached to either side of the nasal passages. By having the patient open his mouth and say "ah," the lower border of the growth was readily seen. By introducing the finger back of the palate, the mass was felt attached to the anterior surface of the nasal vertebræ. Touching the growth caused it to bleed.

OPERATION.—As a preliminary step, the operator performed laryngo-tracheotomy, introducing a tracheotomy tube. Thereupon he stuffed a sponge into the pharynx, which prevented blood from running down the larynx. This having been done, Lawrence's operation was begun. An incision was made commencing on a level with, and a little to the inside of the lower margin of the right orbit. It was carried down the side of the nose, around the nose and up the other side to a corresponding point. The

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operation next divided the cartilaginous septum, with bone forceps, cutting obliquely upwards and backwards. The nasal bones were now separated from the nasal process of the superior maxillary bones and then forcibly bent upwards, thereby fracturing or rather disarticulating them from the frontal bone. The entire vomer was divided and removed by means of sequestrum forceps. The turbinated bones were pressed against the walls of the nasal fossæ so as to make as much room as possible. The growth was now perfectly visible. The anterior part, *i. e.*, the part attached to the basilar process of the occipital bone, was readily removed with Paquelin's cautery. The posterior part, *i. e.*, the part attached to the anterior surface of the vertebræ could not be so readily removed. Some of it was removed with the sharp spoon, but the greater part being very tough and so firmly attached resisted this maneuvre. The surgeon grasped it with a forceps, applying them as near the base as possible; guiding the cautery by means of the forceps, he succeeded in removing the growth. The nose was now replaced and the wound sewed up with silver wire. The apposition of the parts was perfect. The tracheotomy tube was removed and the wound sewed up. About thirty minutes after the operation hemorrhage occurred, lasting about an hour, leaving the patient in a condition of syncope. The temperature, in the succeeding days, rose as high as 101° F. This was owing to a basilar meningitis. It however yielded to bromide and iodide of potassium. To-day, the fourteenth day after the operation, I saw the lad. The success was perfect, not the slightest disfigurement, and nasal breathing perfect.

Respectfully, AL. J. KANNE.

For the opportunity of publishing the following letter from Dr. Geo. E. Ranney, we are indebted to Dr. J. E. Post, of Lansing, Mich. [ED. COURIER.

LONDON, ENGLAND, 449 STRAND, SEPT., 9, 1886.

DEAR DOCTOR:—I have been spending my time in London visiting the different hospitals and have a programme by which I can find something of interest to occupy me about all the week. Wednesday I was present at one ovariotomy at the woman's hospital; and in the afternoon of same day, I witnessed six operations, one for the removal of half of the upper maxillary, two explora

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tions of surgical kidneys, and emptying abscesses of pus, an operation for the radical cure of hernia, etc.

Yesterday I visited the surgical wards at the university in the forenoon, and in the afternoon was present at the same place to witness two excisions of knee-joint, the cleaning out of an old sinus in abdomen of a patient on whom one year ago the surgeon operated and removed a hydatid cyst from liver and the wound never fairly healed. He enlarged the opening and scraped out a quantity of calcareous material. He also removed a fatty tumor from the leg and a lupus from face, involving both cheeks and nose.

I mention this to show you just an average run of surgical practice here. From two to four nights in a week we visit either a skin clinic or the hospital for throat and ear troubles, where at either place we see a hundred patients at each visit with privilege of examining any we chose to do. We occasionally visit the cancer hospital and witness the work there and the operations. One hospital for the treatment of syphilis in men and and another in women, afford us ample opportunity for observation in that line. Another for piles and fistula and one for the treatment of children, present large clinics and are good in their way. In a few minutes I have an engagement to go to Guy's Hospital to witness operations. They always have something good there. They remove kidneys with impunity and with one hand tied behind them. I have seen six or seven explorations of the kidney since I have been in London. I have seen a great deal of vast importance. I do not pretend to take any special courses here, but will go to Germany, probably the latter part of the month, where I expect to take some special courses. I saw Tait at Brighton, would have gone to Birmingham to see him operate, but it was his vacation time and his hospital was undergoing repairs. I expect to go down there before I return. My paper was well received at Brighton; I was elected a member of the B. M. Association. Was nicely entertained by the leading men in obstetrical section. Yours truly,

G. E. Ranny.

Missionary Nurse.—Miss Annie Ellers has gone as a missionary to Korea and has been well received there. Her superior training as a nurse, it is believed, will render her services invaluable to the physicians. She has gone to Seoul where cholera is prevailing now.

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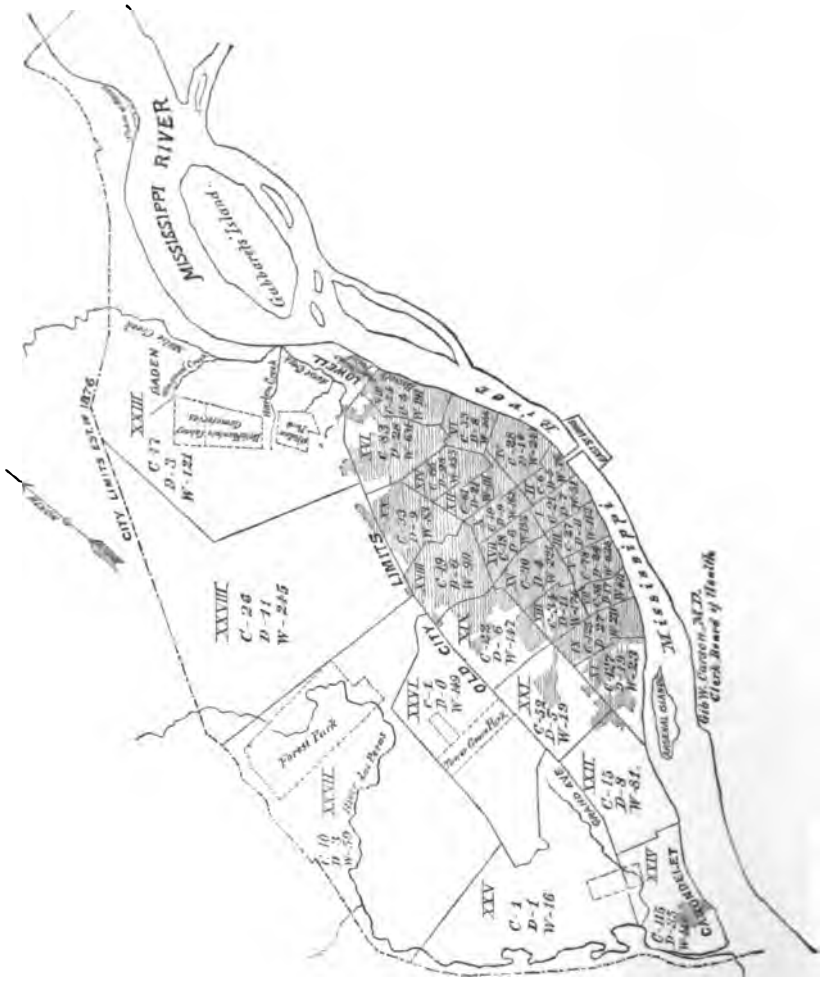
DIPHTHERIA IN ST. LOUIS JUNE—OCTOBER, 1886.



The accompanying map shows the distribution of diphtheria in the several city wards. The shaded part indicates the part of the city which is supplied with sewers, C=cases, D=deaths, W=wells.

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ST. LOUIS
COURIER OF MEDICINE.

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ORIGINAL ARTICLES.

SCHOOL HYGIENE.

BY E. M. NELSON, M. D.

[CONTINUED FROM PAGE 393.]

WELLS—PURE WATER.

In a lecture before the Massachusetts Teacher's Association, Dec. 1884, Dr. Frank Wells makes allusion to a matter which may well be considered at this point, viz., the danger which may arise from the wells of the country school-houses in remote country districts, which are used only in school terms. During the vacations no water is taken from them, and hence it becomes stagnant. Not infrequently the well is partially filled with rotten wood, fallen leaves or even dead animals. In the autumn this water is drunk by the pupils and either alone or in conjunction with other unsanitary influences causes disease. It would be better to have no well at all than to have one in which the water is impure.

The dangers which arise from the drinking of impure water are such that it is of the highest importance to be able to determine the presence of decomposable organic matter or sewage in water for drinking purposes. The following test of Heisch's is reliable and simple: "Fill a clean pint bottle three-fourths full

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with the water to be tested, and dissolve in it half a teaspoonful of the purest sugar (loaf or granulated will answer); cork the bottle, and put it in a warm place for two days. If in twenty-four or forty-eight hours the water becomes cloudy or milky, it is unfit for domestic use. If, however, it remains perfectly clear, it is probably safe to use."

STAIRWAYS, HALLS, DOORS, ETC.

An important matter in the arrangement of school houses is the construction of the stairways. They should be made fire-proof, being enclosed on three sides with brick walls. There should be not less than two, better three, staircases for a building providing for 600 pupils. If the building is more than two stories in height, the upper stairs should be six feet in width, and in the lower story eight feet in width, and the height of the step should not be too great for the ready use of the young children. Spiral, or wedge-shaped steps should be avoided, on account of the danger of falling. It is best that there should be one or two landings, even if it is unnecessary to make a turn, in order to allow the momentary resting place in the ascent.

Much has been written in the last few years by those who have given attention to the subject, with regard to the injurious effect of stairs upon the health of young women, and especially upon girls in their early teens, at the period when the menstrual function is just being established. And still the danger is too little appreciated. The united and unhesitating verdict of experienced teachers and of physicians who have wide experience in treating diseases of women is that school-houses should not be allowed to be erected more than two stories high. Years of suffering and delicate health have been caused by the undue exertion of frequent going up and down stairs by young growing girls in school. A practical suggestion by one writer is that the going up and down stairs would be less injurious to the younger children than to girls at puberty, and, therefore, when it is necessary to have a third story school room, it would be better to have the little children up-stairs and the older girls on the lower floor. For a number of years the St. Louis Normal School was on the

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fourth floor, and a branch high school on the third floor of the building known as the Polytechnic Institute. Here a large elevator was provided for the use of the teachers and scholars.

The hallways or corridors should be broad and well-lighted and ventilated. In large schools they should be ten or twelve feet wide and should open at both ends outdoors by doors or windows, if possible, so as to allow of supplementing the ventilation of the rooms, if necessary.

In Indiana there is a state law requiring that in all schools, churches, halls and other places of public assembly the doors shall be so hung as to open outward, so as to prevent a blocking of the exit, in case of fire or panic from any cause. This precaution should be adopted in all cases. The doorway should be placed near the foot of the staircase, if possible directly opposite it, and the doorway should always be broader than the stairway leading to it so as to avoid the possibility of the passage becoming obstructed in case it should become necessary to remove the children from the school as rapidly as possible.

No school room should be placed in a basement or cellar, but if the ceiling is high and the basement is above ground enough to allow the admissions of sunlight and fresh air, such rooms may be used for gymnasiums or playrooms.

VENTILATION AND HEATING.

The unimpeded aeration of the blood by respiration of pure air is one of the essential conditions for the success of school work and the safety of school life.

Pure air is composed in the main of two gases, oxygen and nitrogen, one part of the former and four of the latter, or more exactly, 21 per cent of the former and 79 per cent of the latter. Of these two gases oxygen is the active agent, the function of the nitrogen being essentially to dilute the oxygen and to moderate the intensity of its chemical affinities. There is in addition to these a certain proportion of carbonic acid (CO_2) and of watery vapor a variable amount. Of the former there are about four parts in ten thousand; of the latter there is rarely more than one-sixtieth or less than one two-hundredth of the whole bulk.

In the process of respiration a decided and very important change is produced in the composition of the air. While in the

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lungs the air gives up to the blood corpuscles a portion of its oxygen, and receives in exchange an increased amount of carbonic acid, not, however, in exact proportion the one to the other.

The presence of a considerable excess of pure carbonic acid gas, as in bottling works or factories where soda water or artificial mineral water fountains are being charged, is not found to affect in any way unpleasantly those who are occupied in such works. Pettenkofer passed some hours in air containing twenty-five times the amount of carbonic acid which is present in ordinary air. In a series of experiments which were carried out by R. A. Smith (Air and Rain, London, 1872) it was found that even in a room where the proportion of carbonic acid and oxygen was such that candles went out in it, it was still possible for persons to breath for some minutes "without difficulty at first, but a gradual feeling of discomfort appeared, of a kind which is not easily described; it was restlessness and anxiety without pain, whilst the breathing increased in rapidity."

Independent of the effect of an excess of carbonic acid in the air, the simple diminution of the quantity of oxygen causes an injurious effect, contraction of the chest, tickling of the eyes, fatigue, weakness and anxiety; we breath more heavily and more frequently, and are compelled to make more exertion at work, while perspiration and thirst ensue." (Wehrle: quoted in Buck's Hygiene and Public Health, Vol. I., p. 619.)

But the effects produced by an excess of carbonic acid exhaled from the lungs is much more noticeable and far more injurious than that from pure carbonic acid, an indication that the symptoms of poisoning which are observed in crowded close rooms are due less to the direct influence of the carbonic acid than to that of the minute quantity of decomposing organic matter which is exhaled with the gas.

In the course of the experiments above referred to, Smith found that "carbonic acid and other emanations from the person diminish the circulation and hasten the respiration."

These "other emanations from the person," the organic matter exhaled from the lungs, and that which is thrown off from the skin, are far more deleterious than the carbonic acid itself. The exact amount of organic matter so given off has never been

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accurately determined. It is nitrogenous and readily oxidizable, and has a very fetid odor, and is probably intimately combined with the watery vapor of the expired air.

Parkes says, (Manual of Practical Hygiene, Vol. I, p. 1571) "The CO_2 which a human being adds to the air he dwells in, is not in itself an important impurity, the amount being too small to exercise much influence on health; but it is practically in a constant ratio with the more important organic matter of respiration; and, as it is readily determined with sufficient accuracy for practical purposes, it is taken as a convenient index to the amount of the impurities."

Of course as we have seen above that there is a notable diminution of oxygen and increase of carbonic acid in expired air, as compared with that inspired, it necessarily follows that where the process of respiration is carried on in a closed room the repetition of these respiratory acts continually deteriorates the quality of the air, and all the more rapidly the greater the number of persons in the room; and there are on record a number of cases evidencing the disastrous result of confining a number of persons in a limited space without provision for the supply of fresh air. The case of the "black hole" of Calcutta, is known to every one, as is also that of the English steamer Londonderry in which during a storm two hundred persons were closely shut into a cabin so small as to allow only about four cubic feet of air each. Seventy-two of the two hundred died.

Ventilation is the process of supplying fresh air to take the place of that which has been polluted by respiration and combustion, and the removal of impurities so caused in the air of inhabited rooms.

The comparatively unanimous conclusion of sanitarians is that even in schools, where the rooms are not continuously occupied, but there are opportunities for throwing open windows and doors at the hours of intermission and recess, and at the close of the day so as to allow of an entire change of air at once, the allowance of cubic space for each pupil should be not less than two hundred and fifty to three hundred cubic feet; that is, a room thirty feet long, twenty-five feet wide and fourteen feet high should not contain more than forty pupils and their teacher.

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Fifty pupils in a room of that size reduces the cubic space for each individual to two hundred and ten cubic feet, while sixty pupils would have only one hundred and seventy-five cubic feet in such a room.

John Simon (Eighth Report of the Medical Officer of the Privy Council) says: "It is to be desired that laws and regulations as to overcrowding should not proceed on the assumption that children (to any measurable extent) require less breathing space than adults. Against any such assumption two facts have been considered; first, that even healthy children in proportion to their respective bodily weights are about twice as powerful as adults in deteriorating the air which they breath. * * * I think it best that children and adults should be deemed to require equal allowances of air and ventilation."

Dr. A. N. Bell states in the *Sanitarian*, Sept., 1884 that a few years ago he inspected a number of public schools in New York and Brooklyn, and found that in the primary department in which the children were mostly under thirteen years of age and constituted three-fourths of the entire public school population, the average capacity of the rooms per pupil was less than seventy feet. "Over one hundred rooms were examined of less than fifty cubic feet, twenty-six of less than thirty cubic feet, and one of only seventeen cubic feet per pupil."

The Brooklyn School Board, after two years' contention, adopted the following resolution (in 1878):

"*Resolved*, The seating capacity of all school houses, school and class rooms of sixteen feet height of ceiling shall be limited to nine square feet of floor space, and one hundred and fifty cubic feet of air space for each occupant. * * * In rooms of less than sixteen feet height of ceiling the rate of floor space shall be proportionately increased.

In the report of a "Sanitary Survey of School Houses in Indiana," it is stated that "in many of the houses less than one hundred cubic feet of air is allotted to each pupil, and in some others but seventy feet is supplied."

In the sixth annual report of the State Board of Health, Lunacy and Charity of Massachusetts (supplement) I find mention of several schools in Boston in which the allowance of space per

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pupil ranges from one hundred to one hundred and forty cubic feet.

In order to maintain the air of the room in a wholesome condition, provision should be made for the introduction of not far from three thousand cubic feet per hour for each occupant. This involves the necessity of an entire change of the air contents of the room several times in every hour.

The wind passing freely through a room with open doors and windows would be the most efficient possible means of ventilation, and during the summer months, at least in the warmer parts of the country, ventilation ceases to be a matter of much practical importance, inasmuch as our schoolhouses and dwellings, with their open doors and windows, then become practically a part of all outdoors, and the air in them is constantly changing.

But the difficult problems of ventilation commence when the temperature falls, and it becomes necessary to supplement the bodily heat by artificial means. The subjects of ventilation and heating are inseparably connected, inasmuch as there is no method of withdrawing the foul air from a warm room in cool weather without at the same time lowering the temperature.

In a climate such as that in which we live there is no question that efficient ventilation involves very considerable expense.

The problem which is to be solved is how to secure the introduction of a sufficient body of fresh pure air into our schoolrooms to maintain a healthy condition of air therein without either causing draughts, which would endanger the health of the pupils, or without so lowering the temperature in cold weather as thereby to cause danger.

In order to solve this problem we must provide, first, an entrance for fresh pure air; second, a means of warming this air before it is admitted, or immediately upon its admission; third, an exit for the impure air; and fourth, some means for promoting the circulation of the air in the right direction.

First as to the entrance. It is necessary that it be so situated that the air admitted shall be as free as possible from any source of contamination. The air should always be taken from outside the building, not from the cellar or basement, and not from the

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vicinity of any water-closet, privy vault, cess-pool or stable. The air-duct should be air tight, best made of metal or of glazed earthenware, and of capacity sufficient to admit the necessary amount of air. The air after being warmed is best introduced into the room at several different points at or near the floor, thus securing better distribution of the warmth, and utilizing it where it is most needed. It should be mentioned, however, that some very excellent authorities strongly urge the admission of the pure warm air at the upper part of the room, the openings into ventilating shafts being placed near the floor. Some very satisfactory results have been obtained by this mode of ventilation.

In buildings which have a cellar or basement, altogether the most efficient mode of tempering the air before it is introduced into the room is by means of some form of steam heater or by a properly constructed hot air furnace. Where the building is such as to warrant the expense necessary to command the time of a man competent to combine the duties of an engineer with those of a janitor, the steam heater affords the pleasantest and, on some accounts, the most satisfactory mode of supplying heat. The steam radiators situated in different rooms have the objection that they are apt to be very noisy, interfering very materially with the school exercises. In addition to this it must be borne in mind that the radiators in the different rooms make no provision either for the supply of fresh air or the removal of that which is foul, and necessitate a separate special provision for this purpose. As was well said by Prof. C. O. Curtman, of St. Louis, in his paper read before the American Public Health Association two years ago, "Without such additional ventilation, even the most elaborate and elegant steam heater is to be denounced as a nuisance, dangerous to health and life, and should be most especially rejected as a means of heating school and assembly rooms."

If, however, the air from without is passed through coils of steam pipes in a room in the basement, and is thence distributed to the school rooms, it is probably the most efficient and wholesome means of heating which has yet been devised. There is no doubt that the true rule in regard to the heating of the air in the living rooms is that its temperature should never be raised above that which is produced by contact and radiation of metal pipes filled with steam or hot water.

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Motives of economy, however, among others may lead to a choice of a hot air furnace in preference to a steam heater. The hot air furnace is simply a stove or heater, around which is placed a jacket of masonry or sheet metal entirely enclosing it, the fire pot and ash box being reached through metal tubes which penetrate the jacket but have no communication with it; the smoke pipe from the heater also penetrates the jacket in passing to the chimney, having no communication with its cavity. The large air ducts bring air from without the building to the base of the heater within the jacket, and a number of small flues from the top of the jacket conduct the warmed air to its destination. When the furnace fire is lighted, the air for combustion is supplied from the basement, and the products of combustion escape into the chimney, without entering the air chamber at all. The air in the chamber becomes heated and expanded, and thus so much lighter that it rises through the air flues into the rooms, and its place in the jacket is taken by fresh cool air from the air-duct. The greater the difference in temperature between the air from the furnace and that in the rooms, the more active will be the ascending current, and even when no special aperture is left near the floor for the exit of the air that is driven out, it will be forced out through the crevices of the doors and windows. By the admission of air already heated by a furnace or steam radiators in the basement in such manner as indicated, we avoid the danger of taking cold from draughts of cold air from without coming in at crevices of doors and windows, as is so common when the ordinary mode of heating by stoves is adopted.

The furnace or furnaces should be of sufficient capacity so that even in severely cold weather there may be no necessity to "crowd" them or allow them to become red hot, as air which has been superheated is unpleasant as well as unwholesome. A broad vessel of clean water should be kept constantly in the air chamber of the furnace, in order that the air as it passes into the rooms above, may carry with it a due proportion of watery vapor.

In order to provide for the escape of the foul or vitiated air from the room, ventilating flues should be supplied, with openings near the floor or ceiling or both, with slides or registers by

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means of which the openings may be controlled. These ventilating flues should be carried to the top of the building, where all foul air flues should have a common place of discharge.

In order to make these foul air flues efficient and really trustworthy, they must be provided with some means for keeping the air in motion in the right direction, so that the supply of fresh air on the one hand and the withdrawal of the foul air on the other, shall be continuous. This is most easily and simply done by heating the air in the foul air shaft. This may be done by placing within the shaft and along its course gas jets or lamps constantly lighted; or still more advantageously in the larger school buildings, by having near the centre a large and high ventilating shaft or chimney, which is constantly heated by a central metallic smokestack through which escape the smoke and other products of combustion from the furnace or other heaters, or in summer by means of a small stove which is kept burning for that express purpose. By means of such a ventilating shaft, into which the foul air flues from the various rooms enter, a constant current of pure air can be kept passing.

But there are many school houses all over the country which have no cellar and no facilities for such heating and ventilation as described. A comparatively simple, inexpensive, but efficient plan was suggested at the Sanitary Convention at Lansing, Mich., March 20, 1885, by Wm. Applegate, an architect of that place. The usual small chimney is to be replaced by a more substantial one, starting from a good foundation below the earth line, with walls eight inches thick, and enclosing a flue sixty by twelve inches, at the centre of which is built in, as it is carried up, a circular sheet-iron or glazed clay pipe, preferably the latter, ten inches in diameter. This pipe is to serve as the smoke flue from the stoves. It should be started about two feet above the floor line and extend two feet above the chimney surrounding it. The shafts left in the chimney at each side of the smoke stack should be covered over at a point one foot above the chimney with a galvanized iron protector, supported by wrought iron rods thoroughly anchored into the brick work of the chimney, the whole to be neatly fitted around the smoke stack.

The stove should be a large one, cylindrical in form and envel-

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oped by a sheet iron casing which should be tightly fitted to it, and extend from the floor to the top of the stove. The doors to admit fuel and remove ashes should extend through the casing; and there should be between the stove and the jacket an annular space which should be at least four hundred square inches. A circular opening is cut through the floor so as to be directly under the stove when set. This is fitted with a register, or covered with strong wire cloth, and should have not less than four hundred square inches area. To this the fresh air is conveyed through a glazed clay pipe, two feet in diameter, starting from a point at least three feet above the earth, on the side of the building exposed to the prevailing winds. The pipe should be carefully laid so as to be air tight except at the two ends. When the fire is started, the air passing through this pipe enters between the stove and jacket, and being heated rises up toward the ceiling. In order to cause a circulation of air and an equal distribution of the fresh, warm air with a removal at the same time of the vitiated air, openings are made into the shafts at the sides of the large chimney, and connected with ducts leading from registers at different points in the floor of the school room. Each floor-register should have an independent connection with the ventilating shaft, and the ducts should collectively have a sectional area nearly twice that of the fresh air duct. For summer ventilation, neat iron doors may be placed in the chimney shafts for the admission of burning lamps which would create an upward current strong enough to change the air in the room as often as necessary. He estimates that the whole outfit would cost not more than $300.

At the Sanitary Convention at Ypsilanti, Mich., June 30, 1885, Prof. Austin George, of the State Normal School, Ypsilanti, described a still simpler and more economical arrangement, which he states is in successful operation in some of the smaller schools of Grand Rapids, Mich. It is similar to that just described, except that there is a less complicated system for the withdrawal of the vitiated air, consisting simply of setting registers at the base of the ventilating shafts for the escape of the air into them.

But there is still another large class of school rooms in wh ch

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no systematic ventilation has been provided for, and in which the opening of doors and windows forms the only practicable method of introducing fresh and removing foul air. It is well worth remembering that the simple device of placing under the lower sash a strip of board four to six inches in width and long enough to extend across the window casing will admit a considerable quantity of fresh air between the upper and lower sashes, directing the cool air upward at the same time, so that it is warmed before reaching the occupants of the room, and causes no draught.

In all cases where no systematic provision for ventilation has been made, and in most cases, even where such a plan has been attempted, the doors and windows should be opened at recess and at intervals between recitations to allow of a thorough flushing of the room with fresh air.

A word should be added as to the temperature at which a school room should be kept. Opinion is not quite united on this point. Morin says: 59° F. is the proper temperature, and Varrentrapp sets the standard at 65¾° F. and Ficker at 64° F. A somewhat higher standard has been generally adopted in this country, varying from 65° to 70°. The rule of the St. Louis School Board requires that the temperature be kept between 68° and 70°, not being allowed to exceed the latter. Sensation of chilliness at this temperature indicates imperfect circulation of the blood and that the pupils are being kept too long at study without exercise. Raising the temperature will not make them warm, or, if it does, will cause greater suffering from headache and increased debility.

Every school room should be provided with one or more reliable thermometers, and the temperature be regulated by their indications and never by the sensations of pupils or teacher.

An important accessary to every school room is a room in which the outside wraps, overshoes, umbrellas, etc., can be deposited. This should be so arranged, if possible, that damp garments will be dried during school hours, and so that the vapor from the drying garments will not be admitted into the school room. If, in addition to this, facilities can be afforded

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by which scholars can have an opportunity for drying their feet in wet weather by replacing wet shoes and stockings with dry ones, which might readily be brought with them if encouraged to do so, very much will be done to prevent "colds" and protect the health of the pupils.

[TO BE CONTINUED.]

THE PREVENTION AND TREATMENT OF PUERPERAL FEVER.

BY GEO. N. KREIDER, A. B., M. D., SPRINGFIELD, ILL.

[*Read before the District Medical Society of Central Illinois, October* 19, 1886].

In December, 1883, Prof. T. Gaillard Thomas read a paper before the New York Academy of Medicine, which attracted the attention of the entire medical world. In it he formulated certain rules for the management of normal childbirth, which made that usually harmless procedure assume all the dangerous characteristics of a capital surgical operation. Such unusual utterances provoked wide discussion, and more condemnation than praise was awarded them. All the old theories regarding the disease were revamped to combat the views so brilliantly expressed, and no less distinguished a person than Prof. Fordyce Barker, President of the Academy, led the inimical hosts in the discussion. Medical journals teemed with the experiences of old practitioners, who, in hundreds and thousands of obstetrical cases, had never seen an instance of puerperal fever, and therefore argued that outside of hospital and city walls, no such disease exists. Practitioners no less old, who had seen and lost cases, attributed its appearance to a miasmatic or climatic cause, or to the ever convenient "cold," and, as far as they were personally concerned, dismissed the teachings of the paper as the ravings of a bacterio-maniac. Despite this opposition, the rules laid down by the eminent teacher were endorsed by many able observers, and are standing the test of time. It is now recognized that although the regulations formulated may be more

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severe than is usually necessary, yet nothing short of their absolute enforcement gives a positive ground on which to stand in our endeavor to prevent the disease. Prof. Thomas's paper made such a deep impression on my mind that I have since followed its teachings in a modified way. Experience in my own practice has been supplemented by observations recently made in the wards of the Vienna General Hospital, and I therefore feel that I am speaking of that which I do know when I say that the following simple rules, modifications of Thomas's, should be adopted and enforced by every accoucheur.

1. The bed, body and body linen of the patient should be clean, and an abundance of clean, soft linen cloth or toweling should be supplied with which to remove the discharges as they appear at the vulvar orifice.

2. The accoucheur should remove his coat, roll up the sleeves of his shirt to the shoulder, thoroughly scrub his fingers, hands and arms with a stiff nail-brush, and before each examination, dip his hand in a basin of warm water into which has been placed some germ destroying material. A mercury salt is easily carried and will usually be found the best for this purpose.

3. After delivery, the perineum should be carefully examined, and if rents or fissures are discovered, they should be sewn up or dusted with iodoform.

4. The vulva should be cleansed, and all soiled material removed from the bed before the accoucheur leaves the house.

5. A rise of temperature above 100° should be the signal for a thorough syringing of the vagina.

By the adoption of these simple precautions, I firmly believe that septicemia would be virtually abolished from the lying in chamber. We can at least be sure that no bacteria have gained entrance to the genital tract through our neglect, and their introduction by other sources is extremely improbable.

As a slight proof of the efficacy of the rules I have laid down to regulate my own actions, let me relate the following experience from my practice.

At 7 P. M. on the 8th of last July, I was called to see Mrs. C., an Irish lady, 38 years of age, who six days before had been delivered of a healthy child by a midwife. I found her in the

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third day of her illness with a temperature of 102.4°, a pulse of 130, and greatly prostrated. The tongue was coated in the centre, red at the edges and tip, and very dry. The cheeks were flushed, while the body was bathed in perspiration. Her clothing had evidently not been changed since the confinement. Having made the diagnosis of puerperal septicemia, I first treated the uterus, vagina and vulva in a manner to be hereinafter described, and then changed the clothing of the patient and bed. During this time my coat was removed, my shirt sleeves were rolled up to the shoulders, my fingers, hands and arms were thoroughly cleansed as before described, and these were the only precautions taken to prevent my carrying away the poison. From this case I drove directly to the residence of Mrs. R., and there, after thoroughly disinfecting my hands and arms as before, undertook the management of a case of labor. At 1 A. M. five hours after leaving the case of puerperal fever, I delivered her of her first child, a fine boy. I reached my apartments at 2 A. M., and after a few hours sleep, was called in haste at 7 A. M. to consult with Dr. J. A. King in the case of Mrs. Wm. S., in her second confinement. An arm was found presenting, and as it was cold, I hastily disinfected my hands and arms as before, turned and delivered a child which had died since the beginning of the labor, before the lady was seen by Dr. King. Finding that meconium had escaped from the rectum of the child, I took the precaution to wash out the uterus and vagina with an antiseptic solution. It may be easily supposed that I was somewhat nervous for several days, fearing disastrous consequences from this great infraction of a stringent professional rule. In the case of Mrs. R., the primipara, there was absolutely no rise of temperature or sign of poisoning, although I saw her several times within a few hours after visiting the case of puerperal fever. Dr. King informs me that in the case of Mrs. S., although there was a slight rise of temperature, it was of short duration and easily controllable by medication alone. This one experience may not and should not be sufficient to convince my hearers, that with proper disinfection, and that less complete as regards clothing than is usually advised, one may go from a case of puerperal fever to the lying-in chamber

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with impunity. However I believe that a more thorough test than the one I have cited could not be undertaken, and I announce myself prepared to try it again should the occasion require. It may be of interest to state that in Berlin an order has recently been issued requiring the names of midwives who have had a case of septicemia occur in their hands, to be reported to the police, thus virtually making the appearance of this disease a criminal offence on the part of the attendant. As physicians are not mentioned in this order, it is probably taken for granted that no cases occur in their practice. Prof. Thomas was, however, not the first one to lay down strict rules for the prevention of puerperal fever. Forty years before Semmelweiss, of the Vienna General Hospital, appreciated the cause of the disease, and discovered the means of preventing it.

Before proceeding farther in the history of the malady and its treatment, it may be well to attempt to define it. This can probably be better understood by stating first what it is not. Puerperal fever is not a fever which existed before the birth of the child and which still remained at and after the birth. It is not a typhoid or typhus fever; not a scarlatina, measles, or erysipelas; not a hectic fever due to tuberculosis, or to a collection of pus in any part of the body. It is a fever which occurs in a previously healthy woman as a result of childbearing, and which usually makes its appearance within ten days after delivery. In by far the greater number of cases it is fully manifested on the third day after delivery. It is usually ushered in with shivering or a distinct chill and a rapid rise of temperature. The secretion of milk stops entirely, or is greatly diminished; the tongue is dry and coated in the centre; the bowels are constipated; the urine dark colored and loaded with urates. There is swelling and tenderness of the abdominal walls, and a bad looking discharge exudes from the vaginal orifice. In nearly every case the disease is due to the introduction of matter containing micro-organisms to the more or less lacerated surfaces of the uterus or vagina. This matter is usually contained under the finger nails or upon the hands or instruments of the practitioner or nurse. That the poisoning may occur from other causes than these I will not deny, but, as I am rather sceptical on this point, I

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will not attempt to state them. Puerperal fever, I may remark, is not a rare disease even now. Statistics in the office of the Illinois State Board of Health show that an average of three hundred deaths occur from it annually in this state. The vital statistics of the city of Springfield have only been kept for about five months, but during that short time, in a city of 35,000 inhabitants there have been five deaths, an average of one per month. I firmly believe that a majority of these deaths are unnecessary, and that a great stain rests upon the profession because of their occurrence.

Among the hospitals suffering from the epidemics of puerperal fever which formerly frequently swept over Europe none suffered more than the General Hospital at Vienna. In 1842, the deaths from puerperal fever there were fifteen in every hundred cases. For many years before that the average mortality from the same cause was ten per cent. No successful measures for preventing this frightful mortality were discovered until Semmelweiss noticed several facts which led him to a solution of the cause of the trouble. He found :

(1). That the mortality was much greater in the wards in which medical students practiced than in those in which midwives assisted in the delivery.

(2). That this difference was probably because the students attended post mortem examinations and handled specimens, and afterwards went to the wards to assist in deliveries without purifying their hands, while the midwives did not attend post mortem examinations.

(3). That by taking the precaution to purify the hands of the students before they undertook deliveries the mortality was reduced in their wards, while the mortality in the wards attended by midwives remained the same.

(4). That when these precautions were abandoned, the high rate of mortality returned in the students' wards.

(5). That in hospitals where the midwives made post-mortem examinations a high rate of mortality from puerperal fever existed. The means of purifying the hands was to scrub them well with soap and a nail-brush and finally wash them in chlorine water. Precautions almost identically the same have reduced the mor-

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tality from 15 per cent in 1842 to three-fourths of 1 per cent in 1882. It took many years for the teachings of Semmelweiss to gain credence in his own country, and much longer for them to penetrate to foreign lands. As late as 1878 a terrible epidemic prevailed in the wards of the Cincinnati Hospital, and, strange to say, it was caused and kept in continuance by the same course of conduct which was proven to cause the disease in Vienna, viz., handling of pathological specimens, and uncleanliness of the attendants. The story of the treatment of Semmelweiss, amounting almost to persecution, is a sad one of the inhumanity of man towards a real reformer, but his worth is now being appreciated, and he ranks with McDowell, Sims and Wells as a benefactor of woman.

Finally a word concerning the treatment of puerperal fever. Being called to see a lady on the third or fourth day after confinement, and suspecting from the temperature, pulse, respiration, conditions of the tongue, skin, etc., that puerperal fever exists, I first carefully disinfect myself and instruments, and proceed to make an examination. The perineum and vulva are first examined for rents, and if any are found they are either sewn up or touched with a solution containing equal parts of carbolic acid and sulphate of iron or iodine, and then dusted with iodoform. Then a Sims' or Cusco's speculum is introduced, and the vagina and cervix uteri thoroughly explored and treated in the same manner if necessary. The uterus is next drawn down with a tenaculum forceps, and thoroughly curetted with Thomas's blunt curette. Finally the uterus and vagina are thoroughly washed out with an antiseptic solution. For this purpose I have used two ordinary glass tubes, such as may be obtained in any drug store. They are tied together, and to one of them the rubber tubing of a Davidson or fountain syringe is attached. Both glass tubes are introduced into the uterus, and the stream being started, the second one serves to carry off the injected fluid. In this manner it is scarcely possible to do any damage to the uterus, and one can be certain that the instrument introduced is perfectly clean. I sometimes pack the uterine cavity with iodoform gauze which remains twenty-four hours, or is removed before that length of time if another injection is found necessary.

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If the fever is running high, rubber tubing arranged as a coil is placed on the abdomen, and ice water is passed through it by siphon action until the temperature falls to 101°. I leave a thermometer in the hands of the nurse, and after giving explicit directions and arranging a table for a record of the temperature, usually find no difficulty in having this part of the treatment faithfully carried out. The kidneys and bowels usually demand some attention; and after they are regulated, very little medication by the mouth is required. If the patient is restless or prostrated, quinia and opium are given for their tonic effects, but not with the idea of reducing the temperature. The ice coil and injections accomplish the latter effectually. It is usually necessary to wash out and curette the uterus but once or twice, the remaining injections being vaginal only. One error often made is that of believing the lochial discharge healthy, if it has no bad odor. In one of the worst cases I have seen, the lochia were perfectly odorless. The duration of the treatment is usually five to ten days. The moral I wish to draw is that the nail-brush should be employed in every case of obstetrics.

THE RADICAL TREATMENT OF CHRONIC TRACHOMA.

BY A. E. PRINCE, M. D., JACKSONVILLE, ILL.

[*Read before the Central Ill. Dist. Med. Soc. at Springfield*, Oct. 19, 1886.]

FOR reasons obvious to the general practitioner there is no more important subject in the domain of ophthalmology than the treatment of trachoma. In the discrimination between few diseases is less precision commonly observed, than between those covered by the generic term, granulated lids. No treatment of the various affections of the conjunctiva can be even moderately successful which is not based upon a rational conception of its etiological and histological relations.

The remedy for the granular appearance which may manifest itself in lachrymal or atropine conjunctivitis must be found in

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securing proper drainage of the lachrymal secretion or the withdrawal of the irritating mydriatic. Neither must the papillary hypertrophy of the cylindrical epithelium which lines the conjunctiva from the edge of the lid to the bulbous portion be confounded with the hyperplastic developments and follicular infiltration, which occur in true trachoma.

This distinction is especially important, for while one condition is a disease of the epithelium, the other is a disease of the lymph follicle, originated by the introduction of a specific agent which operates below the surface resulting in the accumulation of lymphoid products in subepithelial groups. These may manifest innocent or destructive tendencies depending on the balance between the vigor of the specific poison and the physiological vitality of the surrounding tissue which constantly strives to dominate the intruder.

This distinction is further important from the standpoint of treatment, because in the former case the surface, with its villi and sulci, is directly reached by such medicaments as may be topically applied, while in the latter the pathological products are concealed and protected by this same structure.

While the former has been amenable to treatment by astringents, stimulants and mild caustics intelligently applied, the trachoma follicle has defied the resources of medicine. So long as the follicular contents may be poured out on the surface it is thought to be contagious. Without sensible roughness a most persistent pannus or corneal ulceration may be the result of the presence of this poison. In the lid the irritation conduces to the infiltration from the blood of plastic elements which organize into connective tissue. By its shrinkage there is a constant tendency to force these follicles to the surface. They may multiply indefinitely, looking like frog-spawn often completely covering the tarsus and fornix of both lids.

Shrinkage shortens the palpebral fissure, cups the tarsus causing entropion or trichiasis with eventual atrophy of the palpebral conjunctiva and retrotarsal fold, resulting in limitation of the motions of the ball. The mucous-surface may be destitute of moisture on account of the obliteration of the Meibomian and acinous glands (xerophthalmia).

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It often takes years to run through its course, and it is scarcely surprising that the tardy recoveries, frequent relapses and disastrous consequences should produce a demand for some radical remedy. In response to this feeling three such remedies have been developed. In the inverse order of their importance they are:

1. Excision of the fibro-tarsal fold.
2. Jequirity.
3. Enucleation of the trachoma follicle.

Though a radical procedure the first deserves mention only because it had received the earnest commendation of the zealous Galezowski before the announcement of the superior merits of the latter two remedies. The suggestion to excise the retro-tarsal fold was prompted by the condition to be found after years of suffering when the natural process had resulted in atrophy and loss of this fold. Though the disease is brought to a close by the destruction of the material necessary to its continuance, the jeopardy entailed by the consequent arrested lachrymal secretion, partial ptosis, limited motion with increased tendency to recurrent ulcer is sufficient to condemn the procedure to disuse. Is is considered by Hotz an "atrocious mutilation." It aims to effect a condition the avoidance of which should command the thoughtful effort of the surgeon.

The second is much more worthy of consideration. Fresh in the minds of every one is the brilliant discovery of jequirity which marks an era in ophthalmology. The sanguine assurances of the ardent enthusiast DeWecker, translated into every civilized tongue and heralded with meteoric swiftness throughout the world revolutionized the common practice.

For the time, under sway of the feeling of absolute safety, cases of trachoma under all possible conditions were subjected to the influence of the terrific inflammation produced by strong infusions of the bean. A large number of eyes were permanently cured, many more were benefited, and some were lost, while all were more or less imperilled before the current of adverse criticism could arrest the the indiscriminate use of this violent agent. It was recommended as containing a microbe potent to kill the hypothetic microbe of trachoma, being, at the

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same time, innocent or curative in the presence of complicated corneal ulceration. This proved to be an over statement of its merits, and the severe criticism brought upon it by the miscellaneous employment in unselected cases, has reversed the judgment of DeWecker, that it is uniformly safe. Under the influence of accrued experience it has come to be regarded as useless in acute cases. harmful when attended by much secretion, unsafe when the cornea is unaffected, and dangerous in the presence of ulceration. In cases of chronic trachoma with pannus it has won for itself an undisputed place.

When the cornea is fortified by an overlying network of vessels and connective tissue, jequirity has no equal. In numerous reported cases and several in my own experience in which the thickened lid covered a cornea so densely pannused as to hide the pupil and destroy all vision except perception of light, repeated courses of jequirity have rendered the lid soft and pliant, exterminated the disease, and in large part restored the transparency of the cornea.

Experience has also taught the avoidance of the strong infusion and frequent application, at first recommended with such unqualified praise. In the latter part of my experience covering about one hundred and fifty cases a one per cent infusion of the decorticated bean has been employed, applying it to the inverted lids once in twelve hours, until the characteristic membrane or the requisite grade of inflammation was developed. By this practice it has been found that much less pain has been occasioned without causing the results to be less satisfactory.

The third procedure, enucleation of the trachoma follicle, will be found to commend itself to the rational practitioner, as well as the oculist, more highly than either of the others. It meets indications in which jequirity fails; can be employed in the presence of any condition of the cornea or secretion. In it the most potent blow against this covert enemy has been struck.

It was first brought to notice by Mandelstan, of Moscow, who in *Graefe's Archives*, 1883, recommended squeezing out the contents of these follicles. The procedure as recommended was simple.

The lid being everted and held by the thumb of the left hand, the nail of the right thumb is placed in the retro-tarsal fold.

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The two thumbs are now pressed against one another including the lid and part of the reflected mucous membrane thereby squeezing out the follicles, and breaking down the walls.

In the June number, 1886, of *The Archives of Ophthalmology*, Dr. Hotz reports having employed the same method for the past five years, having discovered it by accident five years before the account of its Russian champion. "At this time," he says, "an exceedingly nervous patient with follicular trachoma and acute pannus came under my care. A violent spasm of the orbicularis set in when I turned the upper eyelid; and as I pushed the everted lid upward in order to obtain a better view of the retro-tarsal portion, I observed that the contents of the numerous trachoma follicles were squeezed out by the pressure of the orbicularis, in the form of gelatinous plugs, and by assisting this pressure a little with the thumb, I succeeded in thoroughly emptying all the follicles. The next day, I was actually surprised by the remarkable improvement. All acute irritation gone, relieved of photophobia and the heavy pressure of the lids; could open his eyes without discomfort, and in a few weeks he was dis charged as cured."

Since reading this interesting article written to condemn excision of the retro-tarsal fold, I have practised this operation in a large number of cases, some of which had resisted two courses of jequirity and others had had repeated relapses and corneal complications.

In these obstinate cases the prompt response has been exceedingly gratifying. In some very chronic cases, on the second day the relief from photophobia and irritation has been complete.

In some cases the tarsi have been covered and both folds permeated by trachomatous bodies. In these cases, the branches of a curved clot- or iris-forceps were employed to grasp folds of the conjunctiva and by a stripping action enucleate these follicles. In this manner we may go over the whole of the affected area. Latterly I have used the forceps in all these cases, as it is more efficient than the counter-pressure exerted by the thumbs. When thoroughly performed the bleeding may be considerable. It is usually desirable, and the following reaction

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is very slight. It is to be regretted that owing to its superficial action cocaine fails to secure complete anesthesia except in a small minority of cases. However, when used in 8 per cent solutions and repeatedly applied, the mitigating effect is sufficient to enable a large proportion to endure the operation without complaint. The after pain is comparatively slight, and may always be relieved by applications of hot water.

In radical attempts at trachoma enucleation, in those cases in which the tarsi and folds of both lids are densely infiltrated, the unequaled anesthetic qualities of bromide of ethyl[1] deserve recognition.

This agent when inhaled rapidly and deeply from a porous canvas cone in which two drams have been poured, produces in from thirty to sixty seconds a primary anesthesia of variable duration not exceeding one minute, during which a thorough enucleation of the trachomata of one eye and sometimes of both, may be effected. If the patient fails to inhale as directed or is not much influenced by the bromide, as exceptionally happens, it should be immediately reinforced by one or two drams of chloroform, which, combined with the former, will produce a satisfactory state of unconsciousness, from which the patient will usually quickly recover without sickness. I take the liberty of mentioning bromide of ethyl in this connection, because it is commonly regarded as an unsafe agent. This misapprehension has arisen from the unfortunate circumstance of its having been introduced to the profession as a substitute for chloroform and ether. In this misapplication for secondary or prolonged anesthesia, it proved quite toxic, (owing probably to decomposition and liberation of bromine in the system), whereas when rightly used the patient awakes after a brief sleep without so much as a headache. At the Sanitarium it is always given as a precursor to chloroform and ether, and out of many hundred administrations no single evil consequence has been observed. Without it the tardy action makes chloroform and ether anesthesia ill adapted to so brief an operation as the above.

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1 Bromide of ethyl for short operation,-*St. Louis Medical and Surgical Journal.*, Oct. '83, by A. E. Prince.

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To complete the cure, I advise taunic acid, 5 per cent in glycerine to be applied with a camel's hair pencil to the inverted lid every morning, and hydrarg. oxidi flav. one-half to one per cent in vaseline every night. In irritable conditions the following soothing ointment will be found uniformly grateful:

℞ Vaseline, - - - - ℥ss grm. 16.
Zinci oxidi, - - - gr. x. " .65.
Iodoform, - - - - " v. " .33.
M. Sig. Apply three times a day.

The use of a local bath, with hot salt water, or one-half per cent solution of carbolic acid several times a day often answers well.

Tannin may be supplemented by the occasional use of a crayon of alum, or sulphate of copper, or other favorite astringents. Attention to the general physical condition must ever be borne in mind; and when present the surgical indications furnished by entropion blepharo-phimosis and deficient lachrymal drainage must not be neglected.

THE MICHEL DRESSING IN OPERATIONS ON THE EYE.

BY HENRY L. WOLFNER, M D., *Assistant to the Ophthalmic Clinic St. Louis Post-Graduate School of Medicine.*

SO much has been written, of late, about Dr. Michel's method of treating ophthalmic cases, in which it became necessary to open the anterior chamber, that it would almost seem superfluous to say anything more, were it not for the fact that I have recently been asked by several practitioners to describe the technique of the dressing.

In the last number of the *Archives of Ophthalmology*, appears Dr. Michel's paper, to which I refer anyone wishing to read an exhaustive article on the subject.

In the October COURIER, Dr. Tiffany comments on this plan of treatment, but in such a way as to mislead anyone unacquainted with the facts.

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He speaks of the strip of plaster as a *bandage.* This term, I think, should not be used, as it suggests the paraphernalia of the old dressing. Further on he states that Dr. Michel discussed the merits of his dressing before the American Medical Association; and that he is trying to claim priority in its use.

Dr. Michel was not present at the meeting referred to, nor is it necessary for him to claim priority, as this is conceded by all ophthalmologists. If Dr. Tiffany will reread the article in the *Archives*, he will see that Dr. Chisholm plainly states that the method was originated by Dr. Michel, although Dr. C., in his subsequent writings, probably only from an oversight, has noticeably failed to make any mention of the originator's name, and apparently created the impression that the method was his own.

The dressing is applied as follows: After finishing the operation, the eye is carefully cleansed of all blood clots; the iris, if necessary, cleared from the edges of the wound; the margins of the lids brought *almost* together, and a strip of gold-beater's skin, one-half inch wide and one inch long, placed across the palpebral fissure. Care should be taken not to coapt the edges of the lids too accurately, lest the secretions be pent up and cause damaging pressure.

Dr. Chisholm and several others use a wide piece of isinglass plaster, which extends from canthus to canthus and from brow to cheek. This is certainly objectionable, since it hinders the escape of the secretions, and transmits the movements of the facial muscles to the lids. I have not used a strip as large as the one described, but have applied such an one to my own lids, and have found that at will, I could raise the upper lid by elevating the brow.

It may seem as though I had laid too much stress on the fact that the tears should have free exit; but we all know how much these patients suffer, when, from any cause, the margins of the lids become agglutinated, and the tears accumulate in any quantity.

The application of some unguent to the lid margins, before closing the eyes, would no doubt help to keep the lids from sticking together. I have not made such applications, but Dr. Michel has, although he makes no mention of it in his paper.

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It remains, only to enumerate some of the advantages obtained by the use of this method, though this may seem uncalled for as they are apparent to any one having charge of ophthalmic cases. (1) The ease with which the parts can be examined; (2) The dispensing with the uncomfortable, unwieldy, hot cotton pad and flannel bandage; (3) The perfect position in which the flap remains; and last, and possibly most important, the total absence of photophobia when the strip is removed, as the patient *is not kept in a dark room.*

THE MEDICAL MISSIONARY SOCIETY IN CHINA has recently published a report in which the following notes are found:

The hospital in Canton has celebrated its semi-centennial.

When the first important case of surgery, the amputation of a man's arm, was presented fifty years ago, it was only by the gift of fifty dollars that the patient was induced to submit to the operation, and his life was saved. Since then the willing recipients of hospital care are numbered by hundreds of thousands.

The surgeons in charge are supported by the Presbyterian Board of Missions, but all other expenses are met by wealthy Chinese, and foreign residents of Canton.

DOSAGE OF ICHTHYOL.—Inasmuch as the use of ichthyol is attracting a good deal of attention at the present time, we are glad to have the opportunity of giving to our readers the following note addressed by Dr. Unna, who first introduced this remedy as a therapeutic remedy to our friend, Dr. W. A. Hardaway.

HAMBURG, Sept. 7, '86.

DEAR FRIEND:—I only employ the ammonium salts of ichthyol internally and externally. Internally, 5, 10 and 20 drops one, two or three times a day in a sufficient quantity of water, or in pills of 0.1 [gr. iss] 10—20 a day. I always begin with small doses and go forward to larger ones only if the patients are accustomed to it (ordinarily after a week). If this be done you can go as far as you wish (till to 4-5 grammes a day). The common dose is 1–2 grammes a day. Yours, UNNA.

THE PENNSYLVANIA HOSPITAL is certainly not a "temperance" institution. In the report of expenditures for the year ending Apr. 24, '86, the amount charged for medicines is $1,774.88 while the amounts for wine, spirits, porter, etc., aggregate $2,031.95.

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CASES FROM PRACTICE.

MISSOURI MEDICAL COLLEGE DISPENSARY.—SURGICAL DEPARTMENT.

Service of T. F. Prewitt, M. D.—Reported by A. V. S. Brokaw, M. D., Assistant to Chair of Surgery.

Four Cases of Fracture of Inferior Maxilla.

Case I.—David H., æt. 38, came to clinic June 24, 1886. Stated that he had fallen from a coal wagon the day before, striking the side of his face and chin upon the granite paving. An examination revealed considerable bruising and swelling of the right side of the face, and a bilateral fracture of the inferior maxilla. The segment of the jaw was movable, and considerable displacement existed.

The fracture on the right side was horizontally through the ramus, on a line with the alveolar process. The fracture on the left side ran obliquely through the mental foramen, and the last molar tooth on the right side was found to be very loose, and as it prevented accurate closing of the jaws, it was extracted. Considerable hemorrhage followed, probably from the inferior dental artery. This was checked by local compression. Hamilton's apparatus with a submental pad was used with great satisfaction in this case. The patient was very untractable, and insisted upon keeping a "quid" of tobacco in his mouth, and would remove the splint whenever he felt uncomfortable, or when making his toilet, reapplying the apparatus very cleverly, however. At the end of the fourth week the apparatus was removed, the very slight existing deformity seemed to be due to the callus thrown out. The apposition of the teeth was perfect.

Impairment in the sensibility of the lower lip; from the commissure to the median line of right side of face was noted in this case (due to involvement of inferior dental nerve). The impairment in sensibility was quite marked for the first few days, but had almost entirely passed away when patient was lost sight of.

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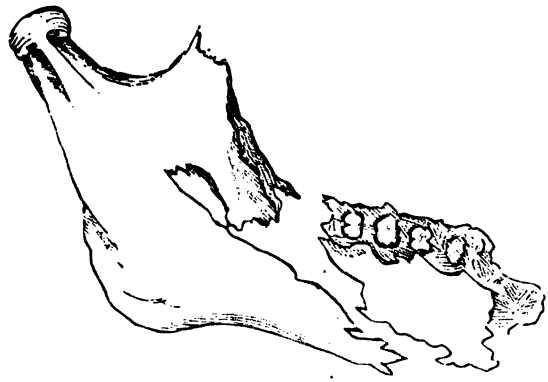
CASE II.—Jno. McCarthy, æt. 8 yrs., 8 mo., came to the clinic Aug. 3, 1885. Had been struck by a stone on the right side of the face, near the angle of the jaw, several days before. On examination found an oblique fracture through the body of the jaw, with comminution of the alveolar process. Several teeth and small fragments of bone were removed at once. An abscess formed which required an external opening, and a drainage tube was passed through the cheek. Extensive necrosis followed and small pieces of bone were removed from time to time. After several weeks a segment of bone, an inch in length, was removed, consisting of the



alveolar process, and part of the body of the jaw.

The amount of callus thrown out was very great, the patient attending the clinic daily for two months or longer. During this time several attempts were made to remove a large necrosed portion of the ramus, which was partially detached, but as it was found that its relation to the parts was such that considerable effort would be necessary, it was thought best to wait and let the separation be complete. Some weeks later the necrosed piece of bone having become very loose was removed. The part removed proved to be the entire ramus of the jaw. From this on, the patient made a rapid recovery. The discharge of pus, which had been very profuse from the time of the accident, soon became very scanty. Aside from the deformity which necessarily existed, owing to the extensive necrosis and the amount of callus thrown out, the patient made a good recovery, the continuity of the arch being

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restored by new formation of bone. While under treatment the patient made frequent use of an antiseptic mouth wash. The parts were thoroughly washed out at the clinic daily with a two per cent solution of carbolic acid. The dressing in this case consisted of a moulded card board splint, held in position by crinoline bandages.

CASE III.—George Orde, æt. 23 yrs., presented himself at the clinic June 29. The day before, while under the influence of liquor, fell, in crossing the street, striking his chin upon the curb-stone, producing a fracture of the inferior maxilla, a little in front of the mental foramen of the right side. The second lower incisor and canine teeth were quite loose on right side, but did not require removal. Hamilton's apparatus was used in this case and met every indication.

CASE IV.—Jno. Sleighter, æt. 46, was struck on the chin by a piece of brick the evening before while engaged in a quarrel. Came to the clinic the following day, May 11. Found a fracture of the lower jaw near the mental foramen of the left side. Slight necrosis followed, and a drainage tube was passed through the lacerated wound of lower lip to the seat of the fracture. The dental arch of left side was slightly elevated, but readily reduced, and the patient made a rapid recovery. Dressing in this case was made of heavy cardboard with lint padding, held in position by crinoline bandage.

REMOVAL OF SEBACEOUS CYSTS FROM THE SCALP BY GALVANO-PUNCTURE.

BY FRANK R. FRY, A. M., M. D., ST. LOUIS.

Read before the District Medical Society of Central Illinois, Oct. 19, 1886.

The following is a report of the removal of fifteen sebaceous cysts from the scalps of two women, seven in one and eight in the other instance, by galvano-puncture.

The tumors ranged in size from that of a small pea to that of a walnut, or from about five millimetres to three centimetres in diameter. The current was passed in three ways. (1) A needle connected with the negative pole was introduced into the tumor, the circuit completed by placing a large metallic electrode on the arm or forearm. (2) A needle connected with the positive pole was

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introduced into the tumor, the circuit made with the negative on the arm, with the large electrode. (3) Two needles, negative and positive, were introduced from opposite sides of the tumor, care taken that the circuit was not completed by contact of the needles, but through the substances of the tumor. On some tumors all these methods were tried, on others two, and on some only one. By the first method, the negative needle, I failed to remove any, although it was used on a number, of large and small dimensions, and sufficient time allowed, before disturbing them again, for a disappearance or diminution in size to take place. The cysts were destroyed by the second and third methods; some by each of these methods separately, some by their combination; that is, after passing the current for a while with the positive needle in the tumor, the negative was armed with a needle and introduced also into some of them; from others the negative was withdrawn after a short time, and the seance finished with the positive needle alone, the circuit completed with the negative electrode on the arm, as above described.

As the result of this disturbance, suppuration followed. The extent and duration of this was, as a rule, directly proportional to the size of the cyst. After once passing the current through several of the smallest size with the positive needle only, until the skin became pale along the line of the needle, there followed within a few hours a slight inflammation, with the appearance of a few drops of thin, flaky pus at the point where the needle entered. Within four to five days, this subsided. A small bluish cicatrix and a shot-like induration only remained. This latter caused no irritation or inconvenience, and disappeared wholly within forty to sixty days. Two of the medium size, with diameter of a centimetre to a half inch, were destroyed after twice passing the current in the same manner, the suppuration process continuing longer than in the small cysts. In the others of this class and the larger ones, two needles were used in some of the combinations above described. In most of them there followed within twenty-four hours after operating, some tension and slight pain, and a red, puffed condition at the site of introduction of the positive needle, at which a few drops of pus occasionally appeared when slight pressure was made. The tension and pain were not enough to cause any considerable inconvenience to the patient, except in one cyst, the largest removed. On the second day after using two needles, it was considerably in

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flamed, distended and painful. It was opened freely. There was a copious discharge of offensive pus, containing an abundance of calcareous matter. It was washed out with an antiseptic solution for several days, a horse-hair tent used for drainage, and firm pressure made by a compress. After a week it caused no inconvenience, although a slight suppuration continued for several weeks. In some instances, four I think, almost the entire capsule of the cyst came away in one piece, twisting out of the small opening with slight traction and pressure in a peculiar manner. Sometimes it came away in small pieces. In other instances no pieces of capsule could be recognized, but a purulent discharge only. The suppuration continued from four to about forty days, seeming to stop when all the capsule was removed. It was never considerable enough to cause much inconvenience, except in the one cyst mentioned above. The patients soon learned to press out the pus and also to remove portions of the capsule as they presented at the openings.

No anesthetic, local or otherwise, was used, although as many as four cysts were operated on at one time. The current was not strong enough to cause much pain, the introduction of the needle being the most painful part of the operation. Of these three kinds were used: Ordinary steel needles ("carpet-needles" and "darning-needles"), a gold plated one for the positive pole, sometimes, and some insulated with rubber or shellac to within three or four lines of the point. Both of the latter kinds were trocar-pointed and the size of darning needles. The ordinary steel needles, of good size, seemed to give the best results, especially for the positive pole. The electrode used on the arm was brass, with a surface of from twenty-five to thirty-six square centimetres, and was covered with a well moistened sponge. From four to six cells of an ordinary acid battery were used, giving with the above electrodes, an estimated current of five to ten milliampères. The length of time that the current was allowed to pass was generally determined by the appearance of the skin over the cyst. When this began to get pale, especially in the region of entrance of the positive needle, the current was rapidly weakened and the needle or needles withdrawn.

Some of the cysts were operated on once only, some two and three times. As the result of observations continued for a year and a half in the first case, and for eighty days in the second, I found that if there were not some evidences of suppuration inside

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of a week after operating, no appreciable effect would follow, and that it became necessary to pass the current again.

These facts would seem to lead to the conclusion that with mild currents, such as may be well enough borne by the patient, to make this method practicable and practical, it is necessary to use the positive needle, and in some instances the positive and negative.

703 Washington Ave.

ANATOMICAL MATERIAL.—Complaint of the scarcity of anatomical material is not confined to the medical centres of our own country. In Barcelona, Spain, (R. Matasen, *New Orleans Med. and Surg. Jour.*, Nov. '86.) the same reason is given for a lack of supply of bodies for dissection as that which exists here and which the new Anatomy Act is intended to obviate, viz., "because there is no *official* obligation on the part of the hospital authorities, to supply subjects to the college."

The college building at present is inadequate for the accommodation of the six hundred and more students who fill its halls. The dissecting room is small, with poor light and ventilation, and has only thirteen tables for bodies. Evidently the study of practical anatomy is pursued under difficulties at Barcelona.

PTOMAINES AND LEUCOMAINES.—A. GAUTIER, summing up the work done on these alkaloids, states that from the muscle of large animals he has succeeded in obtaining five new alkaloids (leucomaines) perfectly definite in composition and crystalline form, which, when administered to animals, act more or less powerfully on the nerve centres, inducing sleep, and in some cases causing vomiting and purging, in a manner similar to the alkaloids of snake poison, but less powerfully than the ptomaines. These bases are formed during life; and occur in the urine, saliva, venom and various glandular secretions, but he has more particularly studied them as they occur in muscle.—*Am. Jour. Pharmacy*, Oct. '86.

MISSIONARY OPPORTUNITIES.—A lady physician is needed in Peking. Dr. Atterbury long ago began to urge the establishment of a woman's ward in his hospital, and with the advantage of that position already gained and held, one with first-class medical training may carry her ministrations into the capital of China, among a people that have shown the keenest appreciation of woman's medical service. And if there were a hundred men instead of the one physician there, they could not do this work of a Christian woman physician.—*Woman's Work for Woman*, Oct. '.86

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EDITORIAL.

DIAGNOSIS OF ASCITES BY MEANS OF THE VAGINAL TOUCH.

Dr. Raymond Tripier, in the *Lyon Médicale*, Sept. 19, calls attention to a means of diagnosis of small amounts of ascitic effusion, which has not hitherto been appreciated, it would seem.

Many authors have noted the fact that in making post-mortem examinations there is often found a small amount (500 to 1,000 grammes) of serum, which had not been detected or even suspected during life. In fact by any of the usual modes of examination it would be impossible to detect these small effusions. When the patient is in the erect position, the fluid is contained in the pelvic cavity and reveals its presence neither by dulness nor by fluctuation, while in the recumbent position the fluid is lost between the coils of intestine. This is all the more true as there often exists with the ascites a distension of the coils of intestine with gas, especially in peritonitis, cirrhosis of the liver, and often also an edema of the abdominal walls in this last disease, as well as in affections of the heart and in cachectic patients.

It was almost by accident that Dr. Tripier's attention was directed to a mode of diagnosis which subsequent observation has shown to be quite trustworthy.

In 1884 a young woman entered his service at the Hôtel-Dieu for a double pleurisy, which he regarded as of tuberculous character. In the course of her disease, she complained one day of a quite acute pain in the left iliac fossa. This pain was increased by pressure; but there existed at that site no swelling nor fluctuation, nor dulness. The whole abdomen presented its usual resonance. Considering, however, the possibility of a tuberculous peritonitis

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or the presence of some other tuberculous lesion on the part of the genital organs, he completed his examination by practicing the vaginal touch.

He found no swelling, no puffiness; the vaginal walls and especially the cul-de-sac were quite free and supple. The neck of the uterus was conical and prominent as in women who have not borne children. Its situation was normal, but when the finger touched it, it seemed to withdraw from the finger by reason of an abnormal mobility. Moreover, it would move in every direction with the utmost facility without any impression of the presence of the body of the uterus, just as if the neck had been fixed at the roof of the vagina by means of an articulation permitting movements in every direction. Not only did the neck rise on the slightest contact, but if the finger was passed into the vaginal cul-de-sac in order to explore the supra-vaginal portion of the neck of the uterus, these parts could not be reached.

These phenomena could only be explained by loss of part of the weight of the uterus, due to the presence of a certain quantity of liquid in the pelvic cavity. He made the diagnosis of an effusion of serum caused by tubercular peritonitis, and this diagnosis was confirmed first by the progressive increase of the effusion, which in a few days, presented all of the classical signs characteristic of ascites, and later by the autopsy.

In a great many cases since he almost invariably observed the same diminution in weight of the uterus and characteristic mobility of the neck in cases of ascites whether the amount of effusion was great or small. These symptoms present different degrees corresponding to the varying amount of effusion and the condition of the uterus, and especially its neck. They were less pronounced in cases of pronounced anteflexion, and less distinct in women in whom the neck was more or less effaced or lacerated, but especially in those who had had periuterine inflammations with adhesions of the uterus to neighboring parts, and still more in those with tumors of the uterus immobilizing the organ more

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or less completely. Therefore the determination of uterine or periuterine lesions would indicate that the vaginal touch cannot be depended on in seeking for ascites; but these cases are exceptional, and in most cases we can detect by this method the presence of a very small quantity of liquid, whatever be the cause.

The value of this means of diagnosis is apparent when we note the importance of early treatment of the several affections which may cause such effusions.

THE NEW ANATOMY ACT.

Copies of the act proposed as a substitute for the present most unsatisfactory statute regulating dissection, have been distributed through the mails and otherwise to the profession all over the state. So far no adverse criticism has been raised: the proposed scheme covers the ground; and, if adopted by the legislature, will secure to the doctors as a body, as well as to the schools, abundant material for the study of anatomy and of operations. But it must be constantly borne in mind by each physician, that unless he *secures the support of his representative* in the coming legislature, meeting next January, there will be a chance of failure. Such a bill cannot be exhaustively discussed in the legislature. Its provisions should be understood by the members beforehand. While necessary, and acknowledged as such by every thinking man, a law legalizing dissection of human bodies will meet opposition at the hands of superstitious and ignorant people. A discussion *pro* and *con* in the daily papers as a result of lengthy debate in the legislature risks defeat of the whole measure; therefore we urge again upon every member of the profession to secure the support of his representative at his own home, when he will have time to consider the matter dispassionately, and not be overwhelmed with a number of different bills clamoring for his attention. The passing of this act depends more upon the active support of the doctors outside the large centres, than upon those there located. But all must give a pull together, when the work will certainly be done.

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EFFECT OF BITTERS ON DIGESTION.

From experiments, recently made, Dr. Tschelzoff has shown that bitter substances produce harmful rather than beneficial effects on the process of digestion and assimilation.

The belief that these substances possess the power of preventing fermentation has led to their use in certain stomachic troubles, but Tschelzoff has shown this idea to be fallacious. His experiments were made principally with the extracts of the bitter substances, as being the form in which the remedies are generally used, and while he experimented with artificial digestion with gastric juice, he also gave to dogs meat together with bitter extracts in some cases, and afterwards killed the animals and weighed the quantity of meat digested. Establishing permanent fistulæ in the stomachs of other dogs, he introduced through these openings meat alone, or meat and extracts. The results obtained were that a small amount of the bitter extract was sufficient to delay the process of both the artificial digestion of fresh fibrin, and its digestion when introduced into the stomach, though in the latter case the delay was not so great as in the former.

The increase of appetite following the use of bitters next engaged his attention; and his experiments were made with the object in view of determining whether this increase was due to an increased flow of gastric juice or to irritation of the mucous lining of the stomach. Introducing through permanent fistulæ made in the stomach of dogs, meat alone, or meat, together with bitter extracts, he afterwards collected the gastric juice, and found that in the cases in which the bitter extracts had been given, the gastric secretion was diminished, the increase being only small and of brief duration when the extracts were given in small doses. He found also from his experiments that bitter extracts delay the pancreatic digestion, while the flow of bile was increased by the extracts of absinthe and trefoil. He also shows that, contrary to the belief that the bitter extracts delay fermentation, the larger the

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dose of the extract the greater is the fermentation; but that the extracts differ somewhat, the extracts of quassia and absinthe do not ferment, while powdered rhubarb and quinine increase the fermentation. He found also that the putrefaction of organic substances, such as blood or urine, was favored, and that the assimilation of nitrogenized compounds was hindered by the bitter extracts.

SCHOOLS FOR THE INSANE.

While to only a small number of physicians is brought the responsibility of treating insane patients in asylums, it is a matter of interest to every one to know of the methods which are found valuable and serviceable in the treatment of such patients. The importance of providing occupation for them has been urged with more or less stress by writers and superintendents for many years. The value of the products raised is a matter of trifling significance in those asylums which have large farms connected with them, as compared with the value of the therapeutic effect upon the patients of the active employment in the open air.

No single form of employment is available in the treatment of all these patients; and not all institutions are so situated as to make it practicable to give employment in farm work to any considerable number of the inmates, though it may be said that no such institution is suitably located in which there is not provision for this, and that no such institution is properly administered in which use is not made to the fullest extent practicable of whatever advantages in this direction can be secured.

Not long ago our attention was attracted by a statement that excellent success had attended an attempt made to provide interesting occupation for insane patients by the establishment of a school in the Hudson River State Hospital at Poughkeepsie, N. Y. We have received a copy of the first report prepared by the instructor, Chas. J. Van de Mark, who is happily enthusiastic in his work, and who has reason to feel highly gratified at the success which has al-

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ready crowned his efforts. There seems to be no good reason why a similar success may not be achieved in other institutions. We should like to see an experiment of this sort in our St. Louis Asylum, and, in spite of the disgracefully overcrowded condition of its halls, or rather, so much the more on account of this fact, we should incline to the hope that an effort of this sort would be most helpful and beneficial. In the Hudson River Hospital these schools were organized in the latter part of January. The report states: "The patients daily visit the amusement or school room, and pursue the studies taught with as much zeal and earnestness as ever possessed a college student. The branches taught are reading, spelling, writing, arithmetic, geography, composition, pencil-drawing, pen-flourishing, algebra, and double-entry book-keeping. Prizes have been offered for excellence in different departments, as reading, writing, and composition.

One gentleman who had not spoken for three years up to the date the schools were organized, now reads, spells and pursues book-keeping with as much heartiness as any of his fellow patients. Also ladies who are silent in the halls, take great interest in their studies at school."

Schools for the children have been established in other asylums but "the Hudson River State Hospital is the first that has adopted measures of this character for the amusement, instruction and healthful exercise of the mental faculties of all its patients, without regard to age."

Patients are not compelled to attend, but do so of their own free will. The introduction of calisthenic exercises with piano music as accompaniment has added much of interest to the school work. Many who took at first no interest in the school were attracted at once by the music and calisthenics.

The result of the few months trial already made is such as to encourage the teacher and the superintendent of the hospital to continue to extend the work by increasing the number of studies and and so adding variety to the interest already elicited.

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BOOK REVIEWS AND NOTICES.

THE MEDICAL NEWS VISITING LIST, 1887. *Philadelphia: Lea Brothers & Co.*, 1886. Dated for 30 patients per week (1 vol.), for 60 patients per week (2 vols.), for 90 patients per week (3 vols.), and undated (perpetual, 1 vol.), $1.25 per volume. Thumb letter index for quick reference, 25 cents additional.

No better or handsomer visiting list is published than this. The printed matter is well selected and practical. The arrangement of the blank pages is convenient, and provides for all needed records; and the finish and "make-up" of the volume is admirable.

HANDBOOK OF PRACTICAL MEDICINE. By HERMANN EICHHORST, M. D., etc. Vol. I. Diseases of the Circulatory and Respiratory Apparatus. One hundred and three wood engravings; pp. v-407. Vol. II. Diseases of the Digestive, Urinary and Sexual Apparatus. One hundred and six wood engravings. Pp. vii-361. *New York: Wm. Wood & Co.*, 1886. (Wood's Library.)

Prof. Eichhorst's work has the unusual merit, for that of a German author, of being thoroughly condensed and directly to the point. The style is almost abrupt. The views advanced are in accord with the most recent observations and studies. Especially we would note the sections on heart diseases in the first volume.

The discussion of the various diseases of digestion in the second volume is well worth careful study.

The two volumes taken together form a most valuable addition to Wood's Library and will be of service to every physician who has them.

CLINICAL NOTES ON UTERINE SURGERY, with Special Reference to the Management of the Sterile Condition. By J. MARION SIMS, A. B., M. D., etc. *New York: Wm. Wood & Co.*, 1886. 8vo.; pp. xi-401. Memorial Edition, price $1.00.

This volume is a republication, at a price which places it readily within the reach of all, of a book which had long been out of print. It is the work of a man who gave the first strong impetus to the development of the special department of surgery to which the later years of his life were devoted, and while many of the views

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which he advocated were modified or changed as experience ripened his theories and practice, it is a matter of interest to all who work in that field to know the early observations of the eminent practitioner to whom the whole profession is so deeply indebted.

COURIER-REVIEW CALL-BOOK. St. Louis: *Jas. H. Chambers & Co.*

Special pains were taken in the compilation of the reading matter in the opening pages of this Call-Book to present matters that are of practical interest and importance to the physician at the bed-side in the examination of his patient and in ordinary treatment. We know of no other book that excels in these particulars. The blanks for records of practice, etc., are convenient and well arranged.

A MANUAL OF PRACTICAL THERAPEUTICS, considered with reference to articles of the Materia Medica. By EDWARD JOHN WARING, C. I. E., M. D., etc. Edited by DUDLEY W. BUXTON, M. D., B. S., etc. Fourth edition. *Philadephia: P. Blakiston, Son & Co.*, 1886. 12mo.; pp. xxix-666; cloth, $3.00.

"Waring's Therapeutics" has stood well before the profession during the thirty years and more since the issue of the first edition. In subsequent revisions the eminent author has repeatedly brought it up abreast of the needs of the times, and now in a ripe old age he has given his best efforts to a new revision, in which he has been ably assisted by Dr. Buxton.

The present edition is materially changed from the preceding ones, much matter being left out and condensed in order to make room for a discussion of the most important of the new remedies which have been claiming attention of late years.

This volume is eminently practical and, therefore, will be a valuable assistant to the practitioner and student.

BRIGHT'S DISEASE and Allied Affections of the Kidneys. By CHARLES W. PURDY, M. D., etc., with new and Original Illustrations. *Philadelphia: Lea Brothers & Co.*, 1886, 8vo.; pp. 288; cloth, $2.00. (St. Louis, J. L. Boland; J. H. Chambers & Co.)

This volume is a truly valuable addition to the literature of this department of practice. The author writes with modesty and yet with a confidence begotten only of personal experience, and displays at the same time a thorough acquaintance with the work of others in the same field.

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The giving of a separate chapter to scarlatinal nephritis, gives due importance to this potent factor in the causation of acute nephritis, though this arrangement causes an unnecessary repetition in the account of acute nephritis due to other causes.

In chapter I., Albuminuria, Dr. Purdy divides albuminuria into extra-renal or false, and renal or true. These terms are not accurate, as what he calls "false albuminuria" is just as really albuminuria as is that which he calls true albuminuria, though the source of the albumen is different. He regards as of little importance the distinction between true albumens and peptone, hemialbumose, etc.

Regarding the tests for albumen, Dr. Purdy gives the following as most delicate and reliable, viz., potassio-mercuric iodide and picric acid, and next in order, heat, ferrocyanide of potassium and nitric acid in the cold.

He notes the importance of not depending upon one test alone, but of trying several when any doubt arises, and of always using at least two in a first examination.

The most important and valuable part of the work is that devoted to therapeutics, which occupies more of this author's attention than is the case with many other writers on this subject. Some of the remedies which he suggests have not as yet borne the test of time, and may not be found to merit the position which he accords them; but on the whole the treatment which he advocates seems well worthy of confidence. The book is well printed with large, clear type which will not strain the eye of the reader, even when using artificial light.

HARD CHANCRE OF THE EYELIDS AND CONJUNCTIVA, by DAVID DEBECK, M. D., Assistant to the Chair of Ophthalmology, Medical College of Ohio.

This is quite an exhaustive pamphlet on hard chancre of the lids and conjunctiva, and contains the report of a case, together with a synopsis of several unreported cases observed by European and American authors, and a complete bibliography.

As far as treatment is concerned, nothing new is suggested.

W.

PHYSICIAN'S VISITING LIST, 1887. (Lindsay and Blakiston's) Thirty-Sixth Year. 1851-1886. *P. Blakiston Son & Co. Philadelphia.*

This visiting list is compact, thoroughly well bound, of convenient size for the pocket, and contains well selected memoranda for

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the assistance of the physician at the bedside. It is issued in different styles, being adapted for recording the practice when the patients number 25,50,75 and one hundred per week, in one or two volumes, and plain or interleaved, at prices ranging from one to three dollars. Probably more physicians use this than any other one visiting list issued.

MAN'S MORAL NATURE. An essay by RICHARD MAURICE BUCKE M. D., etc. *New York: G. P. Putnam's Sons*, 1879. 12mo., pp. 200 cloth.

This essay we have read with interest and have found in it much that was suggestive and valuable.

The author holds that the sympathetic nervous system is the seat of the moral nature of man, and presents many interesting facts, physiological, historical and others to support his view.

The book is a profitable one to read whether or not it leads to an acceptance of the author's conclusions.

SPANISH MEDICINE.—Chemistry and physics are not studied in the *Colegio de Medicina y Cirurgia* at Barcelona, Spain, but are required as preliminary studies. The library of the college contains over 4.000 volumes for the use of students and practitioners, among them some ancient forms older than the sixteenth century. Some of them were expurgated by the Holy office—the Inquisition—which condemned as sacriligious many of the books which dealt with the generative functions. The college session lasts eight months. The course of study required to obtain the degree of "Licentiate in Medicine" covers a term of six years, including one year of *ampliacion* or preparitory study. Before matriculation, the student must present a diploma showing that he has graduated as a Bachelor of Arts in the university of Barcelona or some other creditable university of Spain. So that the college life of a medical student, including the time necessary to secure both the academical and professional degrees, must amount to twelve years.—*N. O. Med. and Surg. Jour.*, Mov. '86.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.—At the annual meeting of this society, held Nov. 18, '86, the following officers were elected:

President, Dr. Walter Coles; Vice-President, Dr. Geo. J. Engelmann; Recording Secretary, Dr. W. M. McPheeters; Treasurer, Dr. G. A. Moses; Corresponding Secretary; Dr. E. C. Gehrung.

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TRANSLATION.

SAMARITAN LETTERS.

By Dr. Friedrich Esmarch, *Professor of Surgery in Kiel, President of the German Samaritan Union.*

Translated by Mrs. Emily A. Nelson, St. Louis.

[Some months ago (vid. editorial in Courier of March, 1884), we called attention to the "Samaritan Schools" founded at different points in Germany under the auspices of an organization called the "Samaritan Union," of which the distinguished surgeon, Prof. F. Esmarch, is the president and moving spirit. The objects aimed at by this organization were set forth in the editorial above referred to, and, we believe, are such as to command the hearty interest and attention of physicians in this country as well as in Europe, and we are glad to know that similar work is to some extent being done in this country.

Having, through the courtesy of Prof Esmarch, received a copy of a pamphlet recently published by him, entitled "Samariter Briefe," and believing that there are many among our readers who would gladly know more than they have hitherto learned of the excellent results which have followed from the work of Prof. Esmarch and his associates in the Samaritan Union, we have secured a translation of these letters of the eminent professor, giving as closely as may be his own presentation of the subject to one who had seemed to him sceptical as to the value or expediency of such instruction as is given in the Samaritan Schools. Other letters will be given in succeeding numbers of the Courier.—Ed. Courier].

Dear old Friend and Colleague:—When I had the pleasure a few weeks ago of seeing you at the station in L———, for the first time after many years, the subject of the Samaritan schools was introduced.

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I soon perceived that you were not in sympathy with my endeavors to introduce these school elsewhere, but also found that you were by no means well informed as to their design.

When I asked whether you had perchance read the paper of Dr. Schleich and the declaration of the Berlin physicians thereupon, you answered affirmatively; while to my second interrogatory whether you had read my explanations of the Samaritan schools, and my guides for the same, as an honest man, you were obliged to answer in the negative. As a reason therefor you stated that you have looked upon the Samaritan endeavors up to the present time only with regret and aversion.

I concluded, therefore, that it had befallen you, as so many German physicians, who give battle either openly or covertly against the Samaritan schools, namely, that you were not acquainted with the subject in question; and, as the departing train unfornately separated us too soon, I promised, with your consent to write you in regard to this topic, in the hope that I may succeed in setting aside your preconceived opinion of the Samaritans.

To be sure I could send you my popular treatises about Samaritan instruction which I have delivered before the profession and the laity in various places, and on different occasions, and in which I think everything has been said that is possible to say for the Samaritan schools. But since I saw clearly that you belong to those physicians to whom every popular presentation out of the lofty jurisdiction of technical medical knowledge is an abomination,I feared that you too would lay them aside unread, or thrust them into your waste basket, as many of my friendly opponents in medical circles are accustomed to do.

Probably you do not know that in England, where the "Ambulance Association numbers already more than 80,000 examined members, and also in America, Denmark, Norway, Sweden and Finland, (where the strength of the Samaritan s is making most rapid progress), not only is there no opposition raised from the side of the physicians, but everywhere the most distinguished physicians have taken the lead in the movement; and from all sides come reports relating the good results attained at sudden accidents through such volunteer helpers, not only in localities which are far removed from medical assistance, but also in great populous cities where numerous physicians live, but who often are not at hand nor to be found at once in such accidents where life is a question of minutes only.

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Therefore I would rather relate to you a few incidents which are better than long, theoretical arguments to show you that I am laboring for nothing which will further (as the Berlin physicians thought) "a grievous injury to the general welfare."

I beg you out of old friendship to allow your spirit of caste for once to step into the background, and quietly, without prejudice, to read these pages and then tell me if you have not gained a different view of the subject.

On a beautiful summer day last year, a horseman on a foam-covered steed rode at full speed to my house with the news that on a large estate lying more than two miles distant, the only son of the owner (a widow), had fallen into the pond and was drowned. She begged me to come to her as swiftly as possible. I had my horses at once harnessed and drove thither as fast as the team could run, yet entirely without hope of being able to give any aid, for I could hardly reach the place and scene of the misfortune in less than two hours after its occurrence. As I arrived the rejoicing mother brought me the news that the boy was saved, thanks to the Samaritan schools originated by me.

The following tale was then narrated to me. The ten-year-old wild boy had, in spite of a prohibition, climbed into a skiff that lay on a deep pond in the grounds, and had, as children delight in doing, rocked it back and forth, until the skiff upset and he fell into the water. A gardener who was working in the neighborhood, sprang immediately into the pond, but it was ten minutes before he succeeded in fetching the boy from the bottom of the pond. When the mother reached there and saw the boy deathly pale and lifeless on the brink of the water, she gave way to the wildest despair. The call for medical assistance was for the moment vain. The dwellers upon the estate hastened thither from all sides, among them an aged shepherd who had the reputation of possessing all sorts of medical knowledge. He proposed at once to attempt resuscitation. He advised that the child be lifted up by the legs and be shaken, head down, till all the water had run out of the body; then they must rub him until the warmth returned, and, if through these means life was not restored, all help would be in vain.

Then a young lady stepped forward, who had been a governess in the house for only a few weeks, and modestly, but with great determination objected to the shepherd's directions. She had only a short time before shared the instruction in a Samaritan school,

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and there had learned how one should carry out attempts at resuscitation upon the apparently drowned; she said that what the shepherd had advised was entirely injudicious. If they would allow her to apply the knowledge she had gained, she hoped that it might be possible to recall the child to life. As proof of what she said, she exhibited a certificate signed by the directors of the school.

The composure and confidence with which the young girl spoke aroused the mother to new hope. She begged the governess to do whatever she thought necessary. Her first advice was to despatch a swift messenger to the city for a physician; the second, to have a woolen blanket heated. Then she herself took hold, whereat the intelligent housemaid also offered to lend her aid. With a few cuts of the shears she divided the jacket and shirt and completely stripped the garments from the upper part of the body. With a handkerchief she removed the slime from the mouth, drew the tongue out and bound the tip of it on the chin with the handkerchief, then she began to carry out with the housemaid the skilful artificial respirations which she had learned in the Samaritan school. Continually, in exact time, the arms were lifted above the head, the little chest expanded as widely as possible, and then again through depression of the arms and pressure on the sides of the chest, the breast was forced down. With distinct, audible noise the current of air flowed in and out, but the child lay pallid and lifeless, if the two young women exhausted with the effort momentarily suspended their exertions. One quarter of an hour after another passed; constantly lower sank the hope of the mother and bystanders. At last after the motions had been kept up more than an hour, suddenly the young girl cried out "It succeeds! He begins to breathe!" And see! as she discontinued the movements, the little breast rose of itself, and a delicate flush tinged the wan cheeks! Loud rejoicing rose from the bystanders; yet the two helpers did not stop and sit down, but though almost completely exhausted, unremittingly prolonged their efforts until the cheeks reddened and the little fellow suddenly opened his eyes.

Now, at the bidding of the young Samaritan, the heated blanket was brought, in which the boy after the removal of his other garments was wrapped up, and with which he was then energetically rubbed. The boy began to speak and desired something to drink. They prepared him some warm tea, and carried him wrapped up in blankets, into the house and put him in bed where he soon fell into

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a deep sound sleep; and when I went to his bed two hours later, he complained of nothing farther.

Now, I ask you, dear friend, what would have become of the child if the young Samaritan had not been at the place, and if they had followed the advice of the old shepherd?

As a contrast, I will relate a case described last year in the Berlin newspapers. In the midst of the great capital, Berlin, a laborer fell into the Spree. He was almost immediately rescued by his comrades, but in a lifeless condition. They sent for physicians, but it was more than an hour before they succeeded in obtaining one. Until that time his comrades made the most injudicious attempts to restore him to life. They stood him on his head, rolled him over a barrel, struck him with united force on the stomach to get the water out, poured brandy in his mouth, and so forth. When at last the physician came, there was no pulse to be felt and no trace of respiration visible. He pronounced him dead, and had him taken to the morgue. What would a Samaritan have done in this emergency?

Not less instructive is another case which Her Majesty the Empress and Queen Augusta condescended to relate to the directors of the German Samaritan-Union, when they had in April of this year the honor to present to her, the noble protectress of the order, a Samaritan album. At a great conflagration which had broken out at night in Margrave street (also in the midst of Berlin) two suffocated victims were rescued from a smoke-filled room, a young girl and an old man, both apparently dead. Immediately messengers were dispatched to fetch medical aid, but it was two hours before they succeeded in finding a physician, who at once went to the scene of the fire. In the meantime several firemen who had profited by the Samaritan instruction at once lent a hand, and with both unfortunates instituted unintermitted, skilful artificial respiration. After a half hour the life of the young girl returned, but with the old man the endeavors were in vain, for it was disclosed at the "charité" in the post-mortem examination that he died of apoplexy in consequence of the suffocation.

I could relate to you more such cases, but these will suffice to inform you that even in the great city of Berlin, medical aid is not always so promptly on hand as to render superfluous the intelligent assistance of well trained laymen.

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REPORTS ON PROGRESS.

DERMATOLOGY.

Molliu. A New Vehicle for Dermatological Medicaments.—KIRSTEN describes under this head a soft soap preparation, to be used in indicated cases as an excipient in making up ointments in preference to fats. "To take the place of the fats in unguents and fill all requirements of a vehicle and preparation for dermatological therapeutics," it should in the first place have a soft salve-like consistence and a continuous and easily regulated intense or mild effect; it must allow of a thorough and intimate mixture with medicaments, and, when applied to the skin, should be easily and smoothly rubbed in. Further, it is very necessary to have a certain unchangeable consistence; neither change of temperature nor age of preparation should make a change in it; it must be bland (neutral) so as to be unirritating.

Apothecary Theod. Cauzin, Leipzig, has made such a preparation. In the manufacture of soap it is very difficult, almost impossible, to obtain the exact proportion of lye and fats or fatty acids (even when the raw products and condition under which the mixture is made are alike). To obviate this and the irritating character of the soap due to the presence of free alkali, the proportion of fats and alkalies was changed in favor of the fats. In mollin the percentage of fat exceeds that of the alkali more than 15 per cent (17 per cent exactly). For this reason the presence of chemically free alkali is impossible and irritation of the skin is excluded.

This is one of the most important points of differentiation as regards the soaps, as even the so-called *neutral soaps* show a slight alkaline reaction and irritate the skin. The only way to obviate the tendency to irritation is by means of these "über fettete seifen." The excess of fat serves to render inert any free alkali, and destroys the irritating effect.

The superiority of molliu over other soft soaps may be seen by the following: Molliu contains in 100 parts of fat 40 of lye and 30 of glycerine.

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Sapo kalinus albus contains in 100 parts of fat, 50 parts of lye.

Sapo mollis (Hebra) in 100 parts of fat, 60 parts lye and 20 parts alcohol.

Sapo viridis in 100 parts fat, 75 parts lye and 60 parts water.

Thus the mercury soap of Oberlaender is inferior to the hydrarg. molliu, as he (Oberlaender) uses the sapo mollis of Hebra in its manufacture.

In the manufacture of molliu the best raw products are used—pure, freshly rendered kidney fat, tallow and the finest Cochin cocoa oil; potash is used more than soda, saponification is brought about in the cold; later 30 per cent of glycerine (puris. rect. pharm.) is worked in, and by careful heating complete saponification is brought about and the molliu finished.

The color is white with a slight tinge of yellow; has a uniform, agreeable, soft consistence, about like that of a tolerably firm fatty ointment. In rubbing it in on the skin, the addition of water is unnecessary. (It *is* necessary in the Hg. soap of Oberlaender and Schuster.) The consistence is not altered by keeping, even if exposed to the atmosphere. It could, therefore, take the place of fatty vehicles in hot climates. Cleanliness is another feature, as it is easily removed by simply washing the parts with water and drying. It is recommended as a bland soap to irritable skins.

Its chief use thus far as a vehicle has been for mercury. Molliu and hydrarg. are intimately mixed and rubbed up just as in the officinal ung. hydrarg., 1 to 2. Oberlaender's preparation is 1 to 3. Molliu mercury can be made 1 to 1. Its color is silver grey, a somewhat lighter shade than the officinal ung. hydrarg. Neither before nor after rubbing on the skin can hydrarg. molecules be seen even with a lens; it allows itself to be more rapidly rubbed in than the hydrarg. soap. Ten minutes are usually required; it does not soil the linen, there is no rancid odor, it is easily removed from the skin by water and a cloth. Kirsten claims that the action is more rapid and effective than hydrarg unguent. Eczema mercuriale is of rare occurrence.

Summed up the advantages of molliu hydrarg. cinereum are as follows:

1. The composition is the same as the officinal ung. hydrarg. cinereum, but can be made 1 to 1.
2. It is more easily and smoothly rubbed into the skin.
3. It is cleaner and pleasanter to use.

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4. The action is more intense, and therefore smaller quantities are required. It is even claimed that through the molliu the mercury is more readily soluble.

Molliu is combined with styrax and used in scabies. Styrax being resinous and stringy could not readily be removed from the skin except with alcohol. Made up with molliu this is obviated, and it may readily be removed with water.

Similar advantages are claimed for molliu with pix liquida, acidum carbol., salicyl., and tannicum, bals. Peruvian, chrysarobinum, hydrarg. precip. album, et rubrum, ichthyol, iodoform, naphthalin, naphthol, corrosive sublimate, sulphur, thymol, etc.

Molliu has recently been made up in two forms, a soft one and one of a somewhat greater consistence, to allow the making of firm ointments with more fluid or very soft substances. It would be very useful, Kerster says in conclusion, in preparation of the "Saponimente" described by Unna and Litzel in the *Monatshefte* of 1885.—*Monatshafte, f. prakt. Derm.* No. 8, 1886.

The Anatomy of Keloid in the Early Stage.—RADCLIFF CROCKER (London) removed a scar keloid which was only about three weeks old—tumor around a linear cicatrix three-fourths of an inch long, one-third inch wide, and extended about one-eighth inch above the surface, divided transversely into two parts, and from one part sections were made transversely, and in the other parallel to the long axis of the tumor.

The substance of the tumor was divided up in all directions into pseudo-lobules, by narrow, branching channels, which were blood-vessels, with an attached fibrillar tissue running parallel, their outer wall rich in well stained cells. A fibrous tissue frame work containing a considerable number of cells attached to the fibres filled up the interstices. The tumor did not go right up to the site in every part, stopping just below the papillary layer; then there were very delicate and separate fibrils running horizontally beneath the rete, containing numerous dilated vessels and forming a part of the pseudo capsule, which made up of fibrous tissue, enveloped the tumor. The papillæ were absent, the palisade layer of the rete forming a sharply defined horizontal, perfectly even line all along above the tumor. These cells were not as perfectly formed as usual, the rete above and the stratum corneum being normal; epidermis as a whole slightly thickened. Changes not limited to tumor, papil-

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læ just beyond it much enlarged, and the interpapillary prolongations of the rete prolonged downwards, for a considerable distance laterally, and below the tumor there was dilatation of vessels surrounded by round cells (leccocytes) thicker just about tumor, diminishing as the distance from tumor increased, going into the adipose tissue in some places; cell infiltration especially abundant about hair follicles and sweat glands, obscuring, sometimes obliterating them.

Sections parallel with longitudinal axis of tumor appeared as if made up of loosely arranged delicate fibrils, with a clear outline, running with the long axes, and formed a fine network with narrow flattened meshes lying horizontally, containing many fusiform cells, attached to the border of the mesh. These cells, everywhere numerous, are most abundant about the vessels.

The fibres in the papillary layer ran at right angles to those in the tumor, forming a narrow band of cribriform tissue. In many sections the papillæ and rete pegs were quite normal over the tumor in some parts and obliterated in others even in same section. It appeared to depend upon whether tumor was farther from or nearer to surface, whether the papillæ were normal or not.

On comparing this with what Langhaus, Warren, Jr., Neumann, Kaposi, etc., (who examined older tumors) say, we find some further changes produced. When the tumor has lasted for some time, a large number of vessels, especially in the centre, obliterated by pressure of carm. tissue and becomes fibrous bands (oblique bands of Langhaus). The cells and nuclei disappear for most part; the new fibrous tissue contracts and forms close bands which are parallel to long axis of tumor.

So far true and false (scar) keloid are identical in their anatomy; they differ, it is said, in that in true keloid the papillæ and retepegs over the tumor are intact, while in scar keloid they are obliterated. This alleged difference has been considered a proof that spontaneous keloid was a true new growth of the corium, while the false kind was on an hyperplastic cicatrix. Bahes examined a spontaneous case (Schwimmer's) and found same condition as in scar keloid. From this we must infer that Bahes examined a scar keloid, or that obliteration of papillæ, etc., had occurred by pressure of the growth. Crocker thinks this may occur and is demonstrated by his case. The cicatrix of origin was linear; rete and papillæ presumably normal on each side till keloid formed and that

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evidently developed by two lobes, one on each side of cicatrix and growing upward, obliterated the papillæ in some parts and not in others.

Bahes finds this supposed reliable distinction absent in a spontaneous keloid, while it is present in Crocker's scar keloid, which would make them the same.

Division into true and false keloid is unsound on clinical and anatomical grounds: cases may be called spontaneous which are not known to originate from scars, but it is for clinical convenience, not to express pathological difference.

Both Warren and Crocker observed that the blood vessels (starting points) are affected far beyond the tumor. This accounts for recurrence after removal, to avoid which cut wide of the tumor. Spontaneous evolution does occur.—*Brit. Med. Jour.* Sept. 18, 1886.

COCAINE INTOXICATION.—Dr. Taylor, in a late discussion before the Richmond Medical Society, mentioned the following case to illustrate the danger from cocaine intoxication. A young physician who, while a student, had cocaine prescribed for some supposed kidney disease. The cravings of his system for more of the drug became more and more pressing. If his own knowledge warned him of his danger, he probably consoled himself with the reflection that his kidney disease was progressing, and more of the remedy was demanded. For weeks before he was seen by Dr. Taylor, he had been in Richmond on a protracted spree, and his conduct was so strange as to give rise to the suspicion that he was insane. It was then discovered that he was taking cocaine hypodermically every few hours. When a stop was put to this he was a raving madman; swore he would kill himself, and had to be watched constantly to prevent him from carrying his threat into execution. His delirium finally became so violent that a commission of lunacy sent him to an asylum, but in a few days he made his escape and returned home. His brothers then took charge of him, confined him to his room, and kept a guard over him constantly, and in that way finally broke him of the habit, to which he was a slave. For six weeks his ravings were represented as violent, and his delirium was acute and distressing.—*Quar. Jour. of Inebriety*, Oct., '86.

MANY good temperance people can only see inebriety from one point of view. All the relations and surroundings of the subject are not considered. The one view is considered correct beyond all doubt and question.

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SOCIETY PROCEEDINGS.

ST. LOUIS OBSTETRICAL AND GYNECOLOGICAL SOCIETY.

Stated Meeting, October 21, 1886.

Vesico-Vaginal Fistula—Vesical Spasm.

Dr. Prewitt.—I will report two cases of vesico-vaginal fistula I have had recently and which are interesting from the circumstances connected with them. In one of the cases a physician in Illinois had attended the woman in labor, which had lasted for about eighteen hours when he applied the forceps and delivered her. A fistula followed, and the husband at first was disposed to think that it was the result of the use of the forceps. Some doctor had told him that this was the cause, and he was disposed to sue the attending physician for malpractice. The doctor wished me to take charge of the case and also tell the parties my view of it. The doctor said in his letter that the labor had been rather tedious, and had lasted eighteen to twenty hours when the head became engaged in the outlet of the pelvis, and he used the forceps to deliver her. I examined the patient and found a fistula at least an inch and a half in length, lying pretty well back. The cervix itself was so greatly lacerated and ragged that, had she not been a young woman and just delivered, I would have been tempted to believe that there was an epithelioma. After a few days I operated, passing the stitches from the right extremity through a portion of the lacerated tissue about the cervix, so that I had some doubt about the union being complete and told her so. She was very anxious to get back, and couldn't wait until the parts were entirely healed. Union occurred throughout the greater portion of its extent; but there was a very small opening left at the point where the stitches had passed through the lacerated tissue. I wrote to the physician that the fistula was not the result of the use of the forceps, but that he applied his forceps too late. The forceps are

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applied laterally, and could not by any possibility touch that part of the vagina. The trouble was that the forceps in this case were not used early enough. I simply wanted to bring the matter before the society, because there still seem to be some doctors who are ignorant enough to suppose that the use of the forceps could produce vesico-vaginal fistula.

Another case of considerable interest to me I operated on about two weeks ago, a woman who had been operated on five times before by three different surgeons, each time the operation proving a failure. In that case the excoriation and swelling of the labia and parts were something tremendous, the labia were as big as my two fists, and red and angry, covered with a little phosphatic deposit, which is frequently found in such cases, and the itching was agonizing. The poor woman suffered perfect torture every night. It was absolutely necessary to get the parts in better condition before any operation was attempted, and I kept her in the hospital perhaps three weeks, using the douche, administering benzoic acid and borax internally, and finally the parts improved very much and became in much better condition, so that I operated. A peculiar circumstance was that I placed in the bladder a self-retaining catheter, and within a short time there commenced such a spasm of the bladder as I never before saw. I attended her for three or four hours, and in the meantime she had been suffering perfect agony. When I was called to see her, I attempted to remove the catheter, and it required quite an effort to pull it out. The mucous membrane seemed to be forced into the little openings in the self-retaining catheter, so that it required quite an effort to draw it out. I was puzzled to know what to do. I replaced the catheter, but the trouble began again as violently as ever. I introduced a small, soft catheter into the bladder, and she was able to retain it, at least with the use of rectal injections of McMunn's elixir freely administered, and I replaced the large one the next morning. The catheter got out several times, and she passed water through the urethra. I think the next day she passed water through the urethra, and several times during the week before the removal of the stitches, she did so; and she preferred it so much to the draining of the catheter that I think she was anxious to do it and not have the catheter replaced. On the eighth day I removed the stitches. I find since, on applying the speculum, that there is some leakage. She told me that she had suffered from these spasms of the bladder after the

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other operations, but it did not occur to me to take any precautions against it. Probably had I profited by the experience of the others, I might have avoided this by using either a soft catheter primarily, or by the use of McMunn's elixir by the rectum or by suppositories. The soft catheter did not seem to provoke the spasm: whether she would have had it had the soft catheter been used first, I cannot say.

FIBROID TUMOR.

I have here a portion of a fibroid tumor of the uterus, which is interesting chiefly from the circumstances connected with it. The patient was an unmarried woman 28 or 30 years of of age, who had been under the care of a physician of some intelligence in this city, for some months, and he was treating her for ulceration. Within the last two or three months she had placed herself under the care of a female doctor, and this female physician had continued to treat her for ulceration of the womb, and had seen her only a few days before I was called in. Another physician had been called in, and, upon making a slight examination, found a growth or tumor there, and immediately called for me to see the case with him. I had with me two écraseurs, as I hoped to be able to remove the growth with them. I found quite a large fibroid projecting into the vagina. The lower portion of it had sloughed, so that there was a most offensive odor from it. How anybody could have mistaken it for an ulcer is a most singular thing to me. It is not possible that that tumor could have protruded through the os without having been apparent. In fact it must have been very apparent even before it projected into the vagina; yet a physician had treated her locally for ulceration of the cervix, and this female physician had also treated her locally for the same condition; and had told her two or three days before before I saw the case, that the discharge was so bad she could not make a treatment. The tumor was as large as my two fists. I applied the wire écraseur and broke two wires, althoug I had quadrupled them. Then I put on a flat chain écraseur. As you all know, if you happen to get a little twist in the chain, and it is almost impossible to apply one without getting it twisted, it is apt to break. I put it on as high up as I could, and tightened it. When a considerable way through the tumor, the chain broke. If it had been a round chain instead of a flat one, this would not probably have taken place. The tumor projected so far into the vagina that I could not get up high enough inside the uterus to en-

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circle the pedicle, which was quite broad and attached upon the posterior wall pretty well up. I got away a considerable portion, and, as I had been operating for two or three honrs, and the parts were a good deal excoriated, and the patient was a good deal exhausted, I didn't think it prudent to continue the operation. Of course the great dangcr was of septicemia. There has been more or less septic fever, which has abated by the use of antiseptic washes and constant irrigation. Her condition yesterday evening was better.

Dr. Papin read a paper on

PUERPERAL ECLAMPSIA.

[For paper and discussion of same, see next issue of COURIER.]

ST. LOUIS MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting Sept. 21, 1886.

OBSTRUCTION OF THE INTESTINE.

Dr. Gregory presented a specimen removed two weeks ago last Monday, post mortem. The specimen was taken from a patient seen in consultation Monday evening for an intestinal obstruction or strangulation. The patient died in about two hours afterward. The next morning he had a post-mortem, and found two portions of intestine adherent, a knuckle about two inches long was much narrowed; beyond that the intestine resumed its ordinary calibre. This narrow portion of the intestine was very pale, and was contracted to about one-third, or probably one-fourth of its normal size, and the arborescent arrangement of the vessels was wanting. On putting the finger into the intestine from above, he found a valve, but pushing on past this valve the finger came around into the narrow portion of the intestine. The history of the case is this: The boy received an injury several years ago; he was kicked or hurt by some kind of violence, and suffered a great deal, but recovered. Ever since this injury he has been troubled more or less; he always felt uneasy after a full meal, and from time to time had the belly-ache. On Saturday prior to the Monday on which he became sick, he ate largely of grapes, and was seized, after this imprudence, with violent pain, of a char-

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acter suggestive of strangulation. A physician saw him soon after his attack, and administered opium hypodermically, and when Dr. Gregory saw him he was fully under the influence of it. He was inclined to believe that modern surgery would have warranted an operation on Saturday, but on Monday, in his judgment, the best thing to do was to let him alone. He was satisfied that if he had opened the abdomen on Saturday it would have failed to relieve him. Possibly an enterotomy might have been resorted to, but he did not think any other operation would have been warranted on Saturday. Any attempt to remove this narrowed segment of intestine would probably not have been undertaken, even if it had been discovered. Of course it would have been a very handsome operation to cut out this segment of intestine and bring the normal portions together, but he doubted very much whether any surgeon, in examining the specimen in the body, would have felt himself justified in proceeding any further than simply opening the bowel and permitting the contents to be discharged.

Dr. Carson thought the specimen very interesting, and taking into consideration the history of the case, thought the proper time to operate, if any operation was to be performed, would have been during one of the attacks of colic. In such a case, the patient giving a history of frequently recurring attacks of colic, he would explain to the patient the dangers that might result from one of these attacks, and would advise the opening of the abdomen, an exploration and removal of the cause, if possible. He would differ with the doctor in regard to making an artificial anus. He did not examine the patient, and of course did not see the intestines *in situ*. In that case his opinion might not differ from Dr. Gregory's, but if the case justified an operation on Saturday, when the doctor saw it it was certainly too late. If the operation had been done early enough, the constricted intestine might have been removed, the ends abutted, and the patient recover. There are some cases on record where a larger amount of intestine has been successfully removed than seems to be involved in this case, and he thought that would have been the proper operation. The great trouble in the majority of these cases is that the surgeon does not see them until the last moment. The family physician generally treats the case until urgent symptoms present themselves. The physician gives subcutaneous injections of morphine, and the patient seems to be relieved; but finally the desperate condition of things is realized,

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and the surgeon is called in when it is too late to do anything. Only the post-mortem shows, as in this case, what might have been done. In any of these cases, an intelligent surgeon with the knowledge now had of the subject, would be enabled to diagnose an obstruction, the possible dangers, and the possibilities of relief by an operation. Thomas, of Liverpool, advises the use of morphine and opiates in these cases with a fair amount of success. It is true that morphine and regulated diet will relieve the patient sometimes and lead to recovery. In one case that he saw with Dr. Gregory there was an obstruction of the bowel for about nineteen days, and this patient finally recovered. In another case the obstruction was complete for a number of days, but the symptoms were not urgent, and that patient recovered under the influence of opiates and a proper diet; but for these two cases that recovered, he knew a number of others where death had followed, and the use of opiates did nothing more than relieve the urgency of the symptoms and make death comfortable. In many of these cases the patient might have had a chance if an operation had been performed.

It has been recommended by one of the most celebrated surgeons in the world that we toss the patient in a blanket, knead the intestines, and use massage in case of obstruction. If he himself were a patient he would not permit such manipulation. He thought more patients would be killed by that method than by opening the abdomen, as is done at the present day. Strangulation is not relieved by opiates, and in spite of the manipulations, unless the surgeon comes to the rescue, the patient dies. He presented a case some months ago in which the intestine had wrapped around a band. Who would have thought of relieving that by massage or manipulations, or tossing the patient to the ceiling? In another case the patient had a large fibroid tumor; a band extended from the tumor to the wall of the pelvis, and around this was a coil of intestine. He saw that patient in the night, after she had had an injection of morphine administered, and her symptoms were relieved. He was deceived by being told that there had been a passage of flatus, and thought it best to leave her until morning. The next morning her condition was only moderate; she was evidently failing, but none of her friends were present to consent to an operation, and when permission was finally got from the friends to operate and the operation was done, it was too late, because she was almost moribund. If we are going to accomplish anything in such cases we must operate, as we do in hernia, at the earliest moment.

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Dr. Gregory agreed with Dr. Carson that if a man was to come under his care with strangulated hernia, he should operate upon him. The question is, how to know it when internal. If there is no doubt, there need be no hesitancy about the operation. If there is a doubt, we are warranted in waiting. He had heard it said for years past, that if surgeons only operated early in a variety of operations, tracheotomy for instance, it would be successful; that operations are done too late; that is that if done earlier the results would be better. Now the difficulty is to know when to do the operation. A patient is in the hands of nature. We can but hope that through natural processes he may be relieved. But he would say again, did he know the situation of things, that there was a strangulated hernia, whether internal or external, because we know that a strangulated hernia may exist internally as well as externally, in such a case he would operate; but the difficulty is to *know*, and where there is hope one naturally likes to take advantage of natural processes. We should hesitate to substitute an artificial method for a natural method, and as long as the man's strength is preserved, as long as the symptoms are not so urgent that we feel that our papatient is approaching a point beyond which he cannot return, we are not justified in operating, because we take away a natural chance from our patient and substitute an unnatural one, when we are in the dark. It is not possible to know when we opon the belly what we may meet. He continued: I do not change my first assertion—that if I knew I had to deal with a strangulation I would operate; and not knowing, I hope; and as long as there is any hope, the hope rests upon natural possibilities. Relief comes under circumstances the most unpromising—relief after the lapse of days and weeks; and whilst from time to time one dies, and the surgeon sees on post-mortem examination that it was a case that ought to have been operated on at the very beginning, we do not know it beforehand, and hence we are justified in waiting. There are certain symptoms, to be sure, to tell me that a strangulated hernia is present—so-called urgent symptoms—and under those circumstances I should feel bound to lay before the interested friends a statement of the case; I should feel bound to state that the symptoms pointed to such a condition, and that the probabilities were that nothing but some mechanical measure promised relief; but unless the symptoms are urgent, I should feel it my bounden duty to give my patient a chance to recover through natural changes, rather

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than to take the case into my own hands and substitute artificial methods. I don't know that I make myself understood, but I will say distinctly that opening the belly and resecting intestines are dangerous operations. It has always seemed to me that the injury inflicted by the surgeon, even should the patient survive the operation, may be as disastrous in its consequences as the condition for which the operation is done. Who knows what will be the result of the cicatrizations which are incidental to a surgical operation? Had I been called to this young man when he suffered his belly aches, I should have asked concerning his habits. I should have said eat moderately. When you eat immoderately you have discomfort? Yes. I would say to him, Then live abstemiously. There is certainly some difficulty, some obstruction there, and you must never forget it. Habituate yourself to an abstemious life, and you will perhaps live a long time in comfort. I should not have told him, you had better let me cut your belly open and take the intestine out for examination, in order that I might learn the precise condition of things. Had I known that the condition was there just as it existed, I could not have acted otherwise. I would have said, Take care of yourself, young man. Do not eat too heartily of grapes; do not gorge yourself at any meal; you have an infirmity and you have been warned from time to time; and if you do persist, there will come a time when perhaps something will have to be done that will imperil your life; just as I would say to a man with hernia, wear a truss and take care of yourself; don't overburden yourself with work; don't lift or strain; don't do anything that is likely to bring about an intensification of your infirmity. I would talk to him in this way, and why? Because I believe it is dangerous to cut a man open. I believe it is dangerous to perform the operation for strangulated hernia, even if you do not open the sac. So that I make it a rule never to advise a surgical operation unless the symptoms are urgent. I make it a rule to tell patients to do everything and anything before becoming the subjects of a surgical operation. Now ought not I to withdraw from practice? It seems to me I ought to quit, because I never perform an operation if I can help it. I regard every surgical operation as dangerous. I don't care how trivial it may be, there is danger about it; hence I never perform one unless it becomes my bounden duty, and certainly I would never recommend a surgical operation which imperils the patient's life, unless it is ab-

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solutely necessary. Nor can I bring myself to believe that any injury that I might inflict will not be followed by as bad consequences as an injury accidentally inflicted.

Dr. Carson said he did not wish to be understood as advising operation, or at least advising the opening of the abdomen unnecessarily; but in cases of strangulation of the intestines, he thought more cases die by waiting than are relieved by the use of opium and food. As to the advisability of opening the abdomen in cases of this kind; if the symptoms are urgent, the patient has frequent attacks of colic, and there is a history of an injury, he thinks there can be no question as to the propriety of advising the patient of the dangers and the possibility of relief which is offered by an operation. In cases of this kind, this narrowing is going on continually; as the patient is increasing in age, the intestine is becoming narrower and narrower all the time, and the result which followed here will certainly follow at some time or another, and where there are these attacks of colic, he thinks that we should give the patient the benefit of the doubt, after explaining to him fully the dangers. He would not be understood as saying that the operation is not a dangerous one. Nobody knew better the dangers of opening the abdomen; but in many cases he regarded the dangers of opening the abdomen as a great deal less than those that follow leaving it closed. He would not indiscriminately advise the patient to have the abdomen opened in every case simply for the sake of doing something, but where the symptoms of intestinal obstruction were so plain as those presented here, he would advise the operation. Of course in some cases, upon opening the abdomen, it is found impossible to do anything, but in the majority of cases we can relieve the patient.

Dr. Gregory said as to massage he would relate an incident. Sometime ago in opening the abdomen for an obstruction of the intestine, after exposing the parts, simply by handling the intestine the obstruction was relieved. He would ask whether it would not have been very much better to have broken up this band of lymph by massage, which certainly might be a possibility, than to have opened the bowel and found the band so delicate that mere manipulation broke it up. Such a case as that warrants the assumption of a probability that manipulations under such circumstances will relieve the patient. Then again in this particular case massage was tried, and upon opening the abdomen the intestines were found

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intact. No injury had been done by the massage. If he knew a man had an obstruction of the bowel which could not be relieved except by mechanical means, he would open the belly at once, and the earlier the better. But he must know it, or find a warrant in the urgency of the symptoms in assuming so grave a responsibility. He must feel satisfied that there is a condition present which in all human probabilities will be fatal unless it is relieved. If he had the remotest doubt as to the condition he would feel justified in declining to operate; and would feel glad that he could conscientiously decline to operate.

RUPTURE OF THE INTESTINE.

Dr. Carson presented another interesting specimen involving the intestine—a case of rupture of the intestine, through its entire calibre to the mesentery. This man was brought to the Sisters' Hospital some weeks ago. He said he had been kicked early in the morning by a horse, both feet striking him squarely upon the abdomen on the left side and on a line with the umbilicus, below the margin of the ribs. The shock was extraordinary, the vomiting constant, and the patient was bathed in a cold perspiration and pulseless. Dr. Carson diagnosticated rupture of the intestine, and told the patient what he thought of the case, and advised, in case he recovered from the shock, that the abdomen be opened, and an operation attempted looking to the sewing up of the injured intestine. The patient did not recover from the shock, but died that afternoon. The post-mortem showed the abdominal parietes to be but slightly injured. There was some slight congestion of the peritoneum at the site of the injury. The omentum was much congested, and here and there quite a number of blood clots were found. The abdominal cavity was partially filled with fluid and some blood clots, but the patient did not die from loss of blood but from shock attending the severe injury that had followed. Last year there were two similar cases at the hospital. One was that of a man who was brought in two or three days after having been kicked, with peritonitis present which resulted in death. The patient was moribund at the time of his entrance into the hospital. Another was the case of a man who was kicked in the lower part of the abdomen. In that case there was a rupture of the intestine, causing shock, from which the patient did not recover.

Dr. Homan asked to hear from Dr. Gregory in regard to the more remote effects of the resections of the intestines.

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Dr. Gregory said he could not tell; this procedure was new in surgery, and it would take a long time, a series of years, and close observation of a great many cases to determine what is likely to follow resections of the intestine. Dr. Grindon made a resection some months ago, and the patient is still living; but so few of these cases do live that you can count them on the fingers of one hand perhaps; and the reason usually assigned for this fatality is that the operations are performed too late.

Dr. Carson said that in order to show that Dr. Gregory is not so much opposed to opening the abdomen he would state that the doctor was one of the first surgeons in this country to advise the opening of the abdomen in a case of gun-shot wound. In 1879 the doctor advised the opening of the abdomen in a case of a boy on Christy avenue. It was three years after that, in 1882, that the first paper appeared upon the subject, written by Marion Sims.

Dr. Gregory said that that was just one of his conscience cases. In answer to a question from Dr. Leete, he said that though advised the operation was not made.

Dr. Leete thought in view of the difficulties, which all recognize, of determining that there is really such an obstruction as demands surgical interference, such as will not be overcome by natural processes, or, in fact, that there is an obstruction at all, it would be a very good rule for the surgeon to put himself in the patient's place before the opening of the abdominal cavity. We have much to learn before we shall be able to say that the opening of the abdominal cavity is other than an exceedingly serious operation. As to this matter of laying open the abdominal cavity to treat rents in the bowels, one may very easily be misled as to the difficulty in such a case as that. He had once had occasion to make a resection of the intestine in what seemed to be a perfectly plain case. A young, robust, well conditioned cavalryman had been shot. There was scarcely any hemorrhage, just enough to have stained his underclothing a little. The bowels protruded a little, as did also the omentum. If there was ever a case that was suitable for resection, this seemed to be one. That the bowel was cut, was apparent from the part that protruded, though there were only a few drops of blood, and no oozing whatever. An hour or two after the occurrence, when the doctor saw him, the man showed no signs of sinking at all. He had rallied from the first shock, and was really more distressed in mind than in body. Everything seemed to indicate

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that the bullet had probably taken a fortunate course, and that the only injury done was to the walls of the abdomen, the mesentery and the bowels that were protruding. They took him to a sheltered place and carefully drew out the bowel until the torn parts were exposed It was cut in several places through an extent of some six or eight inches, and then it was sound for a considerable distance on either side of these small rents. Dr. W. H. Cole, one of the division surgeons assisted, and they worked with clean hands and instruments, resected the injured part and adjusted the cut edges carefully. But the moment he began to reduce the bowel, a little blood escaped but only a little. They wiped it away and there was no bleeding, but the moment they began to manipulate the part, the oozing would begin. Finally he reduced the bowel and omentum and adjusted the edges of the wound, feeling almost certain that the operation would be a failure, because some little blood vessels had been injured, and the man would die either from the hemorrhage or from the result of the putrefaction of the blood, and in the course of two or three days he did die. The abdomen had gradually filled up with blood. He thought that if it should ever fall to the lot of any surgeon to weigh the question whether his own abdomen should be opened or not, by reason of a suspected condition, he would hesitate a long time, before he would have the operation done in the present state of our knowledge. He always had had a feeling that before undertaking any grave operation in surgery—or trifling ones, for that matter—because a surgical operation is a matter of some moment to the patient, no matter how slight, it is a good thing for the surgeon to try and put himself in the patient's place.

And now as to this matter of new surgery and old surgery; or rather as to the classification which has sometimes been made of conservative and modern surgery or new surgery, apparently implying that conservative surgery is old surgery and that its opposite is new surgery—he believed that the notion is a wrong one, and not justified by the facts, that the entire literature of surgery will show that surgery from its very inception, has had for its object the conservation and preservation of the body; and that surgery from the beginning until now, has been, when at its best, always conservative surgery. But then surgery is not always at its best, because men are human, and some surgeons do not inquire as carefully as they ought in respect of all the facts in every case; and some would-be surgeons start out with the proposition that they will cer-

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tainly become surgeons if they cut away at any and every thing. In army life he had repeatedly heard men who had never had any hospital experience, nor the benefit of clinics such as are commonly conducted in connection with the best medical schools, and who had had no surgical experience in their practice, express the wish "if I could only get a chance to cut"; and whenever they did get a chance to cut, the patient died. Of course army surgery was not like surgery in civil practice, and what was good army surgery would be considered very bad surgery in civil practice. There were a great many limbs amputated in the army which might have been saved had the patient been placed in proper quarters, and received the necessary care; but of course this was unavoidable. Limbs were sacrificed to save the patient's life, which, under different circumstances might have been saved; and he believed he had seen limbs acrificed in private practice which could have been saved.

Stated Meeting, Oct. 12, 1886. Dr. Briggs in the chair.

Plastic Operation on Face.—Compound Injury of Knee-Joint.

Dr. Prewitt presented two patients. In January or February, 1884, a woman was severely burned about the whole left side of the face, involving the eyelids, the cicatrization leading to an eversion of the lids to such an extent that the eye was greatly abraded. He made a "V" shaped incision, and released the lower lid, but the upper lid was everted to such an extent that the eyelashes were just along the border of the eye-brow; the left side of the forehead was also burned and cicatrized and the temple also, so that he was compelled to take a flap from the right forehead. He thought he had obtained a pretty good result. For some time the part from which the flap was taken was thickened and enlarged to such an extent as to make it unsightly, but this had subsided, and it was difficult now to see the scar.

The second patient, a young man was caught in some machinery and lacerated about the knee, the joint being opened and the soft parts greatly bruised and lacerated. The knee was so thoroughly opened that one could pass his finger into the joint. Dr. Prewitt thought it best that the leg should be amputated on account of the risk of attempting to save it. However he told the patient that the leg might be saved, but that there was some risk about it. He said he would take the risk, and Dr. Prewitt dressed the part anti-

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septically, putting a drainage tube through the joint and through the lacerated tissues, and applying an interrupted splint. Some of the tissues sloughed away, but the young man recovered with a very good leg, although it is stiff.

CARCINOMA OF OMENTUM AND INTESTINE.

Dr. Tuholske presented a specimen which was removed post mortem by one of his assistants. The patient was a woman, some forty years of age, and had been under his care years ago. During his absence she complained greatly of some disturbance in her belly, and Dr. Ameiss was sent for to take charge of the case. The woman had been troubled with tape-worms, and had gotten to taking all sorts of medicine. Probably the tape-worm was expelled, but when she noticed some prominence in the belly she insisted that there was a little nest there in which the tape-worm had lived. She emaciated very much indeed, so that three weeks ago she had presented the appearance of one undergoing the process of starvation; she was little but skin and bones, and presented a waxy, yellowish appearance. Dr. Tuholske was called in by Dr. Ameiss to examine the swelling that was noticeable in her belly. He found the uterus and ovaries nomal; the outlines of both being very readily made out, nothing discoverable in the rectum, but about the centre of the abdomen, somewhat below it and to the left side there was noticeable through the parietes a tumor apparently the size of a fist; the skin over it was changed; there were no enlarged veins; the tumor was freely movable; the belly was flabby; the tumor presented imperfectly; there was no ascites or fluid in it; it was hard to the touch; very freely movable indeed; percussion elicited a dull sound; stronger percussion showed that part of the bowel was lying under the tumor and connected with it. Dr. Tuholske made a diagnosis of malignant tumor of the omentum with probably the small intestine connected with it, and told the patient's husband that his wife would die. He asked whether there was anything that could be done, if he could not remove it. There was such a degree of mobility about it that it was altogether probable that the small intestine was involved. He said he might make an exploratory incision to complete the diagnosis, but he was satisfied that the bowel was connected with the tumor; and at the same time that the bowel was not primarily involved. There was no symptom of obstruction or

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disturbance of the functions of the alimentary canal proper; there was simple emaciation—interference with nutrition. The patient and her husband being desirous for an exploratory incision, he put her under chloroform ten days ago, and made an incision about three inches in length in the median line, just below the umbilicus. Introducing his hand into the belly he found the tumor somewhat larger than he anticipated. The tumor was covered by a smooth, glistening membrance—the peritoneum; at the upper margin he recognized the transverse colon. On lifting the tumor somewhat he recognized the small intestine. This of course was sufficient to show that it was useless to attempt to remove the tumor. He closed the wound antiseptically. After that examination the diagnosis was still that it was a malignant tumor of the omentum, with the bowel connected with it but not involved in the growth. The patient rallied from the operation very well, vomiting only during the first few hours, apparently from the anesthetic. The pulse had been 135 before the operation, the temperature 101½°. It remained at about that; the next day the pulse dropped to 120; on the third day it got down to 100. There was no vomiting; there was passage of flatus through the bowels; there was no tenderness, no tympanites, but the patient grew weaker and weaker until she died. A cursory examination shows that it is a carcinoma; that the transverse colon is involved in it; no part of the intestines shows any cancerous infiltration, and there is no evidence of cancerous infiltration of mucous membrane; the small intestine is involved, beginning just below the pyloric orifice of the stomach; and this cancerous mass is matted together—the large and small intestines, filling the mesenteric gland and running up back of the omentum, which was not, as he had supposed, involved. The whole mass apparently springs from the mesentery and passes upwards toward the cardiac extremity of the stomach. As he was not able to make the postmortem examination he asked Dr. Riesmeyer to look at the tumor, and he then read what Dr. Riesmeyer had written about it:

DEAR DOCTOR: The specimen you wished to have examined contained the following organs: Stomach, with about five inches of duodenum attached to it, ttransverse colon, great omentum, lesser omentum, lymphatic glands, vessels, etc. In the walls of the transverse colon, in about the median line, a tumor was found the size of two fists, nodular, of a grayish yellow appearance and comparatively

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soft consistency. On section, it showed a granular, yellowish white surface from which a milky juice exuded. Posteriorly to this there was a somewhat flattened tumor the size of a goose egg, consisting partly of enlarged lymphatic glands and partly of a tumefied duodenum. In the latter the tumor began at the muscular ring of the pylorus, and extended two inches into the intestine, the rest of the duodenum seeming healthy. The lymphatic glands surrounding the pylorus and those in the folds of the lesser omentum and along the lesser curvature of the stomach were also enlarged and of the same nodular appearance. A tumor the size of a hen's egg at the cardiac extremity of the stomach, which, at first sight, seemed also to involve the stomach, turned out to be only a conglomeration of hard and enlarged glands; a continuation of the chain along the lesser curvature. The macroscopic examination alone could leave no doubt that the growth was carcinomatous. The tumor of the duodenum, in contradistinction to that of the colon, was hard, of a cartilaginous consistency, of a grayish white color and of a more even surface. A microscopic examination of it showed a net work of connective tissue with large cell-nests, containing small polymorphous cells of an epithelioid nature; a few of the cells were in a state of fatty degeneration. The tumor occupying the colon showed a similar structure, only more of the cells were undergoing fatty degeneration; besides there was a great deal of cheesy detritus. Also some of the glands were in a state of fatty and cheesy degeneration. The examination shows that the tumor in all probability, first made its appearance in the colon, and thence the infiltration was carried along the lymphatics to the glands surrounding the pylorus, infiltrating the duodenum, and carried along the smaller curvature of the stomach to the glands of the cardiac orifice of the stomach. Yours truly, L. T. RIESMEYER, M. D.

This statement did not altogether tally with Dr. Tuholske's ideas of the tumor, which were based on the total absence of any bowel symptoms. If the cancerous mass had made its appearance first in the intestine, he thought there would at some time or other have been some symptoms of disturbance of the bowel. He had thought that the tumor involved the small intestine alone, but evidently it also involved the large intestine. This was the first case of the kind he had seen, and while he was wondering whether many of them are in existence, he happened to see a patient from southwest Missouri, a woman about 45 years of age, with a similar freely

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movable tumor in the same territory, almost exactly like the other He told this woman just to go home and try and live as long as she could.

OVARIAN POLYCYST.

Last October a woman from Mississippi, about 25 years of age, married, and who had borne one child, consulted him on account of a swelling in her abdomen. There was nothing in her antecedents to suggest any malignant trouble; her health was fair; her face was thin; there was not much adipose tissue anywhere, but she was in a fair condition; her heart acted fairly; she was occasionally troubled with constipation; she had a fair appetite; micturition was normal; she came simply because of the swelling in her belly, which she wanted to know about; she said she had noticed this about three years before, about two months after her confinement; that she had had some pain in the left inguinal region; that it had given her some annoyance, and that she had been treated for pelvic cellulitis for some time. There was some pelvic cellulitis present at that time. There had been at no time any fever. Five or six months after this pain appeared, she was taking a bath; and, lying on her back, she noticed something of a fulness in the place where she had previously had pain, and found there was something wrong. She called upon her physician and had him examine it. He did not make any diagnosis at the time, but prescribed for her. From that time on she had been taking medicine, mostly directed to malaria. The swelling increased, until it became very noticeable above the pelvis. Her doctor thought that she had enlarged spleen and liver, and that there was some ascites present; and she was treated for that, unsuccessfully, however. Before she came to St Louis, she stopped on the way at Memphis, and was examined there; and some doubt was expressed as to the diagnosis, but that practitioner had told her that she had a tumor of the ovary or womb. When Dr. Tuholske examined her, he found, first, the uterus was normal, freely movable, of normal size, and so far as the neck of the uterus was concerned, it was of normal appearance. He found over the prominence, what we expect to find in tumors of that kind, decided dulness; and was very readily able to make out the bowel sound above and upon either side of it, in the lumbar region and upon the right side down as far as the pelvis. The tumor was of uneven shape. Under chloroform he pulled down the uterus, after the method of Hegar, and found that it could be thoroughly separated

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from the tumor, which was freely movable while holding the uterus in position with the forceps. He told the woman that it was a polycystic ovarian tumor, and that the best thing to do was to have it removed. This was in last October, and she did not take very kindly to an operation; she thought she could get some medicine to take this swelling away, and went away disappointed. The tumor kept on developing however, and was interfering with her breathing. This fall she came here to be operated upon. Her face was then purplish, her breathing difficult and she had a small pulse. Seventeen days ago he operated under all possible antiseptic precautions. He was assisted in the operation by Drs. Dixon, Brokaw Jr., Higbee, Epstein and Riesmeyer. Of course all were surgically clean. She took chloroform badly. After inhaling it for about a minute her respirations became very flat, very superficial; she would take an inspiration and an expiration and then stop, and did not seem to inflate her chest at all, and the pulse was trifling. He stopped the administration of chloroform and gave ether, but she had a very poor pulse; and with considerable misgiving he proceeded with the operation. The belly was washed with bichloride of mercury; a towel dipped in it was kept over the part until ready to make the incision; she was lying on a mattress of rubber about half an inch in thickness, which had been thoroughly washed; her limbs were covered with a soft sheath of rubber with the stockings under it, so arranged that the fluid would not get to them. He made an incision, beginning just above the pubes and extending upwards towards the umbilicus. There was some bleeding from arteries that promised considerable adhesions, but there was no trouble until he cut through the linea alba into the fascia, when he could not separate the peritoneum from the remaining portion of the parietes in the upper part. In the lower two and a half inches there was a separation, and the parietes could be removed. He raised the peritoneum between his fingers, holding it up toward the light, and kept on cutting. In this way one can cut to the bladder without any danger of cutting it, and it is a much better plan than cutting from below upwards. As he opened the peritoneal cavity, a great deal of darkish fluid escaped, making things look very unclean at the start. He introduced his hand into the belly, and found many adhesions anteriorly, not of any great firmness, but readily broken up. He separated them without tearing any large vessels until he came to the upper part, where the

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omentum was thoroughly attached, and it was necessary to ligate a part of the omentum, and cutting the tumor out, a small piece of the omentum was attached to it and afterwards removed. There were adhesions to the liver, but none very serious; they were readily broken up. He had exposed the tumor to that extent without making any attempt to tap it. He then pushed a trocar into the mass at a prominent point, and nothing ran through it; but as he removed the instrument, a heavy mass of colloid, grayish dark material escaped, and ran into the belly. Wherever he tried, he found the same mass. He enlarged the incision somewhat, but was not able to deliver the tumor. So he made an incision into the tumor, letting the fluid take care of itself, and when the tumor was raised out of the belly, that thickish fluid completely filled the cavity of the pelvis. The pedicle was just such as one would wish for, and after being cut and ligated, it was dropped. There was no bleeding, except some little oozing from the places where the adhesions had been separated, but all of the intestines looked in a state of chronic inflammation. Instead of the smooth, glistening peritoneum covering the small intestines, it looked darkish and had a granular, reddish appearance. He started to clean out the belly, but the woman was very weak indeed, and her pulse was very small; and for a little while he thought he would not get her off the table alive; injections of ether and brandy had to be given. However, he cleansed the cavity thoroughly, getting all that material out, raising the liver and cleansing the parts thoroughly, and then commenced to close up the wound. He examined the pedicle again, and rubbed a good quantity of iodoform in the stump and into the ligatures, and then dropped it into the pelvis. Then he put some iodoform into the cul-de-sac of Douglas, probably not more than twelve to fifteen grains. He then sewed up the wound, using deep sutures and heavy silk. When he took the woman off the table, her pulse was 148 or 150 and very weak. He put her into bed and applied hot bottles to her extremities. The operation was performed at eight in the morning, and lasted fifty minutes. All through the day there did not seem to be any disposition to rally; she was cool and clammy, and at night became very restless; her pulse was still high; however, her face was bright and cheerful. That night at ten o'clock her temperature was 101½°, and her pulse had dropped to 122; but she was rather restless; indeed she was never quiet, and she began to complain of a soreness on her back, so that it was ne-

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cessary to resort to all sorts of applications to stop a beginning bed-sore within ten hours. That night her temperature was 101.6°, and her pulse 126, and she was tossing about. He gave her a hypodermic injection of morphia, and she then seemed to become comfortable, and the pulse and temperature improved. At 6 A. M., the pulse was 108 and the temperature 100.5°, and the temperature and pulse improved steadily. The next day the temperature was 99.8°, the pulse 110; and from that time on the temperature was never higher than 99.5°. She passed flatus from the bowels from the first day on. She always passed her urine naturally, and the catheter was not necessary. She complained of intense thirst during the first day or two. She ate very little, taking simply a few tablespoonfuls of broth every hour. He kept her on this diet three days, and then added a tablespoonful of milk once in a while. Once or twice she complained of colicky pain. On the tenth day he looked after the dressing for the first time. He took out the stitches, and found the cotton dressing perfectly dry, without a stain on it and as he removed the sutures, they came out not only without a drop of pus, but perfectly dry. The next day she was given an enema, and the bowels moved for the first time. On the twelfth day he removed the stitches and fed the patient promiscuously. She is sitting up now, has a good appetite, is increasing in weight, and her bowels move naturally.

Stated Meeting, Sept. 21, 1886; Dr. Tuholske in the Chair.

CARCINOMA OF THE CERVIX.

Dr. Frank Glasgow reported a case of carcinoma of the cervix, together with a fibroid of the fundus of the uterus. Last November he removed the whole cervix and took out a cone-shaped portion. He found another small fibroid high up in the cervical canal near the internal os. The patient did fairly well for a time, the canal closed up almost entirely, but within a month and a half or so it recurred and went on to ulceration. He was called to see the patient one night on account of hemorrhage. She was almost pulseless and the skin was cold and clammy. He gave a hypodermic injection of atropia with brandy and ergot, and she revived. One curious fact was that she never had had very much pain. She cannot take morphine or opium, and has been taking codeine, not more than two grains a day. The ulceration has continued although no

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nodular protrusion can be felt. Not long ago this opened into the bladder. The woman was failing very rapidly, more from sepsis than anything else. He had been using a very soft Jacques' catheter which was much preferable to a hard one. There had been scarcely any hemorrhage. He would like an opinion as to the best means of securing a movement of her bowels. He had used injections as long as possible, but she cannot bear them any longer. He had used olive oil and sometimes a little castor oil with it, and she had always complained of it. Nothing could be kept on her stomach, and he would like to know if there is anything which could be used hypodermically for that purpose. Absolute constipation had lasted for two weeks. He rather suspected that the growth produced mechanical interference, and that the bowels were involved in the growth. She began taking the codeine in quarter of a grain doses, then a half, and she took 22 grains in a two ounce mixture inside of a week. In answer to a question by Dr. Grindon he said that he had not tried faradization, and didn't think that it could be used in a case of such persistent constipation as this.

Dr. Grindon said that both faradization and galvanism had been used.

Dr. Tuholske didn't think he could suggest any medicine that would overcome this constipation. In an analogous case he had seen a colotomy made, but in Dr. Glasgow's case the patient was too low already for any such operation.

Dr. Tuholske thought that in this case it made little difference whether the bowels were moved or not, the patient being in such a low condition that he did not believe it would result in much benefit.

Dr. Briggs thought that very likely above the seat of the cancerous formation, a mass of hardened feces was present, and if the bowels were moved by any means, this mass would probably be driven through and rupture of the rectum would result.

Dr. Prewitt asked if the doctor couldn't introduce a catheter into the bowel and use injections. By this means if the obstruction is caused by hardened feces, he might be able to soften it and gradually bring it away.

Dr. Glasgow said he had tried injections, but they seemed to fill the lower portion of the bowel and press upon the cancerous mass, and had no other effect.

Dr. Briggs suggested the use of irrigation with two or three gallons of hot water.

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Dr. Glasgow thought that hardly practicable with a patient so low.

Dr. Prewitt related a remarkable case of malignant disease of the uterus, which he had recently seen. An old maid, perhaps 50 years of age, some two years ago, applied to a physician for treatment; he found something wrong about the uterine mucous membrane, and probably scraped the uterus. She was to go back to him, but he had died, and something like a year ago she saw Dr. Engelmann, who told her that the only thing to do would be to extirpate the uterus. She had done nothing since in the way of treatment. After seeing Dr. Engelmann she went to the country and improved very considerably, gaining eight or ten pounds, which was very inconsistent with the malignant history. He himself first saw her about ten days ago. She was thin, spare, and in appearance not healthy. He learned that she had a discharge. The uterus was perfectly impacted and immovable. The uterus did not seem big enough to fill the pelvic cavity, yet there was no infiltration outside particularly, but the uterus was fixed. The os was open, but there was no growth at the external os. There was no external involvement of the mucous membrane of the cervix or vagina; there was some irregular nodulation above. Passing the finger up as far as possible into the uterus, he found a hollow cavity, which reminded him of those stones in which when broken open, you find a cavity surrounded with irregular crystals. Of course nothing could be done. One could not remove such a uterus as that, and it was utterly useless to scrape it, because the entire thickness of the wall was evidently involved in the growth.

Dr. Tuholske said that during his stay in Berlin he saw a large number of extirpations of the uterus. He saw Dr. ——— alone make eighteen extirpations of the uterus during six weeks, and afterwards he kept no account of them. It had really been only during six months or twelve months preceding that period that he had performed extirpation of the uterus so frequently as of late, and the change of practice was due to the fact that he thought he would get a better result from early extirpation. He considers that for every epithelioma of the neck of the uterus, the supravaginal amputation of the uterus is the operation, and he thinks that his results are not only as good as previously, but that they are all that could be desired. He considers that if epithelioma does not recur in three or four years, it is not at all likely to do so, and he thinks

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that he has had good reasons to be satisfied with the operation. The statistics are yet so small that final judgment cannot be given.

The majority of the cases that Dr. Tuholske saw were not for epitheliomata of the neck, but for malignant growths of the body of the womb, or in the cavity that could not be reached by other operations. He saw a number of sarcomata, and of course their operation was limited to such as could be pulled out through the inferior strait. When the uterus got a little beyond that size, of course there was no more talk of extirpation through the vagina. Of course the difficulty about early operations is that these cases are mistaken for endometritis, or do not fall into the hands of surgeons who are willing to make the operation until they have got beyond the size when they can be removed by the vagina, and then they go by default. So far as the immediate result of the operation was concerned. of the] eighteen extirpations, this gentleman did not lose one case. As he makes it, it is not a bloody operation, and any one who has long fingers will not find it a difficult operation, but it takes some ligating high up, ond pretty long fingers to get up high enough; otherwise it is not a difficult operation, and not a bloody one. The doctor is very strict in regard to antiseptics, ond considers that much of the good result is due to their use.

Dr. Prewitt said, in regard to the mnnner of extirpation of the uterus for malignant growths, that he does not believe we can always be sure of accomplishing as much good as is claimed for the operation. If we remove an epithelioma of recent growth, of limited development, about the cervix, we may hope to take out the whole disease by the supravaginal amputation of the neck, and that there will be no recurrence, but the same degree of positive assurance is not to be had in cases involving the body, because we cannot determine as readily when we have sound tissue. There is an infection by contiguity, as well as by lymphatic involvement, and we know very well that if we leave the least particle of infected tissue there will be a return; not through the lymphatics into the pelvic cavity, but locally.

In cases of epithelioma of the lip, there would be a much better percentage of recoveries than thirty-five, for there you can be sure of getting away all the infected tissue; but in epithelioma of the fundus or walls of the uterus, unless extremely limited, it is very doubtful if we can determine whether we get it all away or not,

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and the only way to be sure of it would be to extirpate the entire uterus.

Dr. Frank Glasgow remarked that the Berlin school is a pretty firm advocate of the very energetic operation of the removal of the whole uterus. He don't believe that any other large institution teaches this practice. Of course where the disease is primarily of the uterine body, it might probably be necessary to remove the whole organ, in order to get rid of the whole disease.

Dr. Prewitt reported a case which was quite interesting, and which puzzled him a good deal at first. He found three or four doctors present and a woman lying in a comatose state in epileptiform convulsions, and learned that she had been addicted to the opium habit. Two days before she had resolved to quit this habit, and told her husband that she threw the opium into the waste bucket, and that she was going to quit. A doctor advised her to take whiskey or beer or something of that kind as a substitute for the opium, and the husband thought that during the next day she did take more or less whisky or beer. Thursday night she was taken with acute pain in the back of her head, and was greatly distressed, and sent for a physician who gave her one-sixth of a grain of morphine hypodermically. He afterwards learned that during the night she had taken about a grain and a half, her husband having given it to her when he found her suffering. This, however, was a very small amount in comparison with what she had been accustomed to take. Now the question arose, what was the reason for the condition. He found a very alarming condition; she was in convulsions, and her pupils were greatly contracted when Dr. Prewitt first saw her, but one of the physicians said they sometimes would contract and sometimes dilate. Her breathing was not that of opium coma at all, and after looking at her awhile he was satisfied that there was some other condition present, and it was a question whether to withdraw the opium or not. She had also taken some chloral and bromides, and one of the physicians who attended her before stated that she didn't bear chloral. He had since learned that one of the doctors gave her croton oil during the night. The urine was very pale. He took some of this home and tested it for sugar. The specific gravity was only 1012 but the reaction was very decided. The question came up whether that diabetes had existed before, or was due to the condition found —whether it was a temporary condition. This was a very puz-

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zling question; they could not state whether she passed large quantities of urine or not. Her husband said that she had passed considerable urine during the day and night, and he thought possibly the quantity of urine was more than it ought to be, but there was nothing definite about it. It was a marked case of epileptiform convulsions, and the pulse disappeared during one of these attacks. Her pulse was not slow and heavy, such as we find in opium poisoning or uremic coma. A very important question was whether a good dose of opium or morphine would not have relieved the whole condition. He thought it a little risky to give it, and suggested the use of cocaine and chloroform. They gave her two or three hypodermic injections of cocaine, and she gradually got better from the convulsion. She remained for some time in a semi-conscious state, but within a few hours was able to speak and possibly to recognize some one. He had not seen her for two or three days, and didn't know whether she was perfectly conscious or not, but she had been taking opium since. He suspected some effusion into the fourth ventricle, and that the sugar was the result of that irritation of the fourth ventricle; a subsequent specimen of urine showed a very slight trace of sugar, so that he didn't think there was much doubt that the sugar manifestation was a sudden one, and not a condition which had existed for any length of time.

Dr. Briggs asked how much cocaine they gave her.

Dr. Prewitt said they gave her a grain at a time, and used several hypodermic injections, and he thought it had a good effect. The sugar was probably the result of the condition which produced the convulsion, but he did not know what produced the convulsion, whether it was the withdrawal of the morphine, or some other condition of things.

ST. LOUIS MEDICAL SOCIETY.

Stated meeting, Oct. 9, 1886, the President, Dr. Gregory in the chair.

TREATMENT OF HYDROCELE.—LITHOTOMY.—ANTISEPTICS.

Dr. Gregory wished to make a few remarks in regard to Dr. Tuholske's report of last Saturday evening. For forty years cases of hydrocele had come under his observation in his own practice and

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that of others, and he knew of no case that warranted obliteration of the tunica vaginalis.

Had seen cases cured by injecting iodine into the sac: some cases resisted this treatment. Had for a number of years treated hydrocele by passing a probe tipped with nitrate of silver into the sac, through a cannula, first having withdrawn the fluid, passed the nitrate of silver over the surface of the tunica vaginalis as thoroughly as possible. Had occasionally cut the sac open and stuffed sac with lint wetted with tincture of iodine, which never failed to effect a cure in the most rebellious cases.

In young children always use a seton, and do not inject the sac because the vaginal process of the peritoneum is not always closed in early life.

In some cases there is also some disease of the testicle, but in a large proportion it is so slight as not to warrant the opening of the tunica vaginalis, for the purpose of examining the testicle. No organ in the body is so amenable to therapeutics as the testicle. Velpeau used to declare in his lectures, always to test mercurials and alteratives before sacrificing a testicle. He has seen testicles seemingly disorganized resume a normal state under use of alteratives. In his opinion it is improper to cut open the sac to examine the testicle.

Had never performed supra-pubic lithotomy, but had assisted Dr. Pope after he had performed the lateral operation; the stone was so large that it was necessary to make this additional operation in order to crush the stone. Did not see why this operation should not be as good as other operations, nor why it should be any better. The lateral operation has been very successful in this country. Had performed the operation a good many times, also performed the median operation and liked it. Cutting nowadays is the exception. The first question is, is it a proper case for crushing? and it is the best surgery never to cut unless absolutely necessary. Laparotomy was overdone. The fact of its easy performance did not take away any of its gravity.

In removing the breast always examines the axilla for enlarged glands, never removes any glands that do not seem involved. If glands are involved feels it his duty to remove them.

The experience of surgeons teaches that disease rarely ever reappears first in the axilla, and therefore it is not warrantable in every case to lay open the axilla, expose the vessels and remove

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gland tissue. In regard to antiseptics, stated that it was an unsettled question, did not pretend to say that antiseptics had no share in the successes in surgery, yet complicated details were not necessary as taught by some, and were not borne out by the experience of practical men. As to Schede's method of leaving blood clot in wounds, thought that was putting antiseptic surgery to an unnecessary test. Every one knew how quickly blood decomposed and how necessary it was to supply drainage, and could not understand why a man should leave blood in wounds. It seemed ridiculous. Also thought inoculating a tumor with erysipelas ridiculous. If every particle of tumor could be involved in the inflammatory process, could then see the benefit, but if a single element were left, it would recur, because every element of a tumor is a distinct tumor.

To day nobody doubted that erysipelas was due to a microbe.

Dr. Borck had the good fortune to meet Dr. Schede, of Hamburg, two years ago. Previous to Dr. Schede's taking charge of the Hamburg Hospital, they had never used the bichloride of mercury there. Since he introduced it he stated that he had not had a case of septicemia. The surgeon of another large hospital in Hamburg, stated, when he took charge, the bichloride was used but he could not get along with it, and since he had substituted iodoform, he had never had a case of septicemia, though previously it was quite common. It is very difficult to reconcile these two experiences.

Dr. Funkhouser said that letting blood remain in cavities is not a new idea. John Hunter taught that blood-vessels form *de novo* from a clot of blood. Sir A. Cooper treated compound fracture of bone by placing a pledget of lint, steeped in blood, over fracture. converting it into a simple one. Supposed that much would depend on the person on whom it was tried, and upon cause of the wound or injury. It would be hazardous to let blood that was oozing from a diseased surface remain in the wound. Are not certain at any time that posts are free from septic materials, microbes, bacilli or otherwise.

Dr. Lutz did not believe in subjecting a patient to a more formidable operation than is necessary. Somebody had remarked a few evenings since, in regard to removing submaxillary glands, on the necessity of making an extensive incision over throat. Removed entire lower lip some years ago; was no involvement of glands, and did not see necessity of making extensive incisions. Believed

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status of antiseptic surgery pretty well settled. Great trouble in all wounds was the setting up of putrefaction. Ideal healing is a coaptation of cut surfaces by first intention. Putrefaction means non-union by first intention. The object is firstly to remove everything about a wound of low vitality, and prevent low vitulized material from getting into the wound, and it matters not whether this is done by iodoform, bichloride of mercury, carbolic acid or any other agent.

He had performed laparotomy under spray and strict antiseptic precautions. Sometimes patient died, sometimes got well. One case, in wilds of Arkansas, had no antiseptics with him but vial of iodoform and spring water. Patient got well. Believed it a mistake to bring patients to the city for operation. Would be better to operate at home in the country, amid the pure air and healthy surroundings.

Thought it very hazardous to leave blood clot in wound, especially after removing bone sequestrum, subjects patient to great risk. Dr. Gregory did not mean cases of calcareous degeneration of the tunica vaginalis; in such cases it is proper to remove portions involved. Did not believe in extirpation of tunica vaginalis for so simple an affection as hydrocele, and that other methods give satisfactory results.

Dr. Stevens had the fortune for a number of years to assist the eminent surgeon, Dr. McDowell, of this city, who was a very successful surgeon. At that time microbes were not known. Dr. McDowell used the same sponges every year, didn't think of throwing them away, and the same knives over and over without antiseptics, simply washing with water. He was very successful in the operation for lateral lithotomy. Dr. McDowell used the same instruments on his patients that had been used in dissections on the cadaver. Dr. Stevens had during this time a good many cases of obstetrics, and he don't believe he had any case of inflammation or puerperal fever, lost only one case from puerperal peritonitis, but didn't think it was due to communication of any poison through his instrumentality.

Doubted very much if the results in surgery today are any better than they were years ago, under the circumstances under which McDowell operated.

Dr. Atwood asked if Dr. Stevens knew Dr. McDowell to use the same instruments on the living that he used on the cadaver.

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Dr. Stevens replied that Dr. McDowell had only one set of instruments, which he used in general surgery and on the cadaver.

Dr. Atwood had been Dr. McDowell's student for a number of years, and knew him to have as much success as any one he had known since.

Dr. Meisenbach.—Dr. Tuholske spoke of a method used in Berlin in treating wounds, first putting in stitches three or four days after operations, in the meantime having dressed the wound with antiseptic and absorbent materials, and stated that union took place readily by this method.

It would be very desirable if this could be done, for every practical man knew that at times it was impossible to get union *per primam intentionem*. This might not be due to careless use of antiseptics but to a want of coaptation of approximating surfaces, and also to secretions from wound surface. Had tried this method several times with negative results.

Thought success greater with antiseptic precautions than without. In his own experience he could now get results that formerly were not possible. Had been able to save parts that formerly were sacrificed.

Antiseptics had revolutionized the technique of surgery. The surgery of past and present could not be compared. Operations were done that formerly were not dreamed of.

The majority of operators of to-day were believers in antiseptic surgery.

INJURY TO CEREBELLUM FROM FALL.

Dr. Fairbrother referred to the accident which caused the death of Dr. Jennings, of East St. Louis, on the night of Sept. 20. Returning from St. Louis, Dr. Jennings was thrown out of his buggy and struck on his head, which caused (supposedly) a slight scalp wound. Dr. Fairbrother saw him the next morning. There was some pain along the back of the neck, a soreness along the upper cervical vertebræ. Did not think there was any fracture or shock amounting to congestion. Applied stimulation to spine, and ordered rest. Next day condition similar, only more pain. No evidence of deeper lesion.

About 7 o'clock that eve, was telephoned in haste and found approaching paralysis, and aphonia and slight heart failure. Dr. Mudd and others were telephoned for, and were with him until half-past ten when he died. Post-mortem by Dr. Mudd and

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speaker showed slight congestion but no injury to cord. Beneath the posterior inferior surface of cerebellum was found a blood clot ¼ inch long by ½ inch wide from the right vertebral artery at junction with the basilar. Speaker thought twisting of the head upon the upper cervical vertebræ injured the right vertebral artery as it passed through the former in the axis and caused thrombosis.

Dr. Gregory inquired if the artery was removed.

Dr. Fairbrother replied that it was, but no injury to it could be found.

Dr. Gregory said that no doubt the inner or fragile coat of the artery was injured. Very frequently the outer coat was examined, and the injury of inner coat escaped detection. The curling up of the inner coat was what caused the clot to form.

Stated meeting, Oct. 16, 1886.

CANCER OF STOMACH.

Dr. Meisenbach presented a specimen of cancer of the stomach. The patient came under his observation about the first of last December, presenting symptoms of dyspepsia and general debility. Careful examination revealed nothing abnormal externally. Not improving under treatment, a suspicion of malignancy arose in the speaker's mind. Three months after first seeing patient, slight dulness was detected in gastric region to the left of median line. This dulness increased in area, and gradually a nodule could be detected by palpation. The suspicion of malignancy was verified and concurred in by Dr. P. G. Robinson, who saw the case also The man gradually failed, the nodule and dulness increasing, until in July when he died. Up to within two weeks of his death, there had been very little pain and only occasional vomiting, so that it was not necessary to administer narcotics to any extent. Liquid extract of malt agreed with him best, and aided in keeping up his strength. Operative measures were objected to by the family who preferred to have him die without being operated upon.

Post-mortem revealed a circumscribed growth near pyloric end of stomach; pylorus was patulous. There were no adhesions posteriorly. The liver was not involved, so far as could be detected, and retro-peritoneal glands were not enlarged. Altogether it would have been a nice case for resection.

Dr. Hughes wanted to ask if any of the gentlemen present had

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ever seen cancer of the stomach anywhere except in the pyloric end of stomach. He never had.

Bieben's Test for Cancer.

Dr. Bremer said what was called by Virchow carcinoma *fulgore*, involves the whole stomach, and does not start from the pylorus. Had seen a typical case of this kind which was resected, and in which the stomach was an indurated mass.

Dr. Meisenbach had spoken of the diffieulty of diagnosing cancer of the stomach in its first stages. This difficulty has, to some extent, been overcome by the method of Bieben. The normal reaction of the gastric juice is acid, there being free hydrochloric acid in the healthy secretion of the stomach. Hydrochloric acid in the presence of vitelline blue produces a greenish tinge.

Bieben's test is as follows. The patient in the morning is made to swallow a certain amount of ice-water, which is retained in the stomach for ten minutes and then withdrawn by a tube. This fluid is filtered and a drop of the filtrate added in a test tube to the vitelline blue, and if there is hydrochloric acid present, the vitelline blue will assume a greenish tinge, and if there is not, the greenish tinge will be absent. In cancer of the stomach, as a rule, perhaps without exception, the gastric juice has no hydrochloric acid reaction. Now this test is invaluable, if it can be relied on, as we can can make a pretty accurate diagnosis even where there is an absence of physical signs in cancer of the stomach. By this method a diagnosis had been made several days ago by a gentleman of this city, and he hoped in the interest of science, if not in the interest of the patient, that a post mortem will verify the diagnosis. The patient of Dr. Meisenbach came to a sensible conclusion when he refused to have his stomach resected, for thus far all operations have proved failures. The patients have died in from four to six months after operation. Billroth's cases all died within that time.

Dr. Love wanted to know if Dr. Bremer believed in this method of making an early diagnosis of cancer of stomach, and inasmuch as in the early stage, only a minute portion of the stomach is affected, how this can change the entire secretion of the stomach. Did the doctor think that the disturbance of a small portion of the stomach was sufficient to interfere with the reaction of the entire product of the secretion of the peptic glands of the stomach?

Dr. Gregory inquired of Dr. Bremer whether this neutral or al-

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kaline condition is not present in many functional disorders of the stomach, apart from the organic trouble.

Dr. Bremer said he would answer the question of Dr. Love and Dr. Gregory together.

When there are no gastric disturbances, a cancer may exist in the walls of the stomach and have no symptoms, but when a patient presents himself with gastric trouble and there is any degree of external emaciation or marasmus, the question arises, is this cancer? Regarding Dr. Love's question, it is well known what enormous disturbances of digestion alteration of the stomach causes. Ulceration produces as marked disturbances as cancer. Why an ulcer not larger than a five cent piece should produce such disturbance nobody knows. We only know clinically that this is the case, and this question belongs to that series of questions that never can be answered. The fact is that in cancer of the stomach, the reaction of the stomach is neutral and sometimes alkaline.

Dr. Hurt said it was a question with him and with some physiogists he had read, whether hydrochloric acid was secreted with the other secretions of the stomach, or was manufactured chemically from products that entered the stomach?

Dr. Bremer believed it generally accepted that hydrochloric acid is a product of the walls of the stomach. The stomach is covered by tubular cells which are divided into dark granular and light colored cells. The dark colored cells secrete pepsin and the light colored cells hydrochloric acid.

Dr. Hughes thought there was a difference between a sign and a symptom. A symptom may be common to other diseases, a sign belongs to one disease alone. Could it be accepted as a sign in all cases of cancer of the stomach?

Some men naturally were more credulous than others. The natural bent of his mind would lead him not to give credence to such a statement, no matter how high the authority, unless verified by a number of repetitions.

In apepsia or dyspepsia the atonic state of the stomach depends upon central nervous conditions. Therefore, it is easy to understand that a person affected with localized cancer might suffer from nervous dyspepsia in which both acid and alkaline secretions are greatly impaired, and how a local irritation might produce a suspension of the gastric secretion.

A person examining the stomach under those circumstances, after

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having examined two or three successive cases, might reach the conclusion that there was cancer of the stomach.

This new method must be thoroughly proven before we can accept it, no matter from what authority it comes.

COLLES' FRACTURE.

Dr. Lutz presented a specimen of Colles' fracture from a carpenter, æt. 38, who early in September had fallen from a house, striking the palm of the left hand. He had seen him half an hour afterwards, and found what appeared to be a typical case of Colles' fracture. On making extension and reducing the fracture, it appeared to him as if the hand seemed colder than it ought to. Put it on a pistol shaped splint and ordered local applications.

The arm gradually got colder, and finally gangrene set in. When line of demarcation was established, he amputated the arm at junction of lower with middle third. The specimen presented here is an interesting one, for though we treat many cases of Colles' fracture, it is rare that we see a specimen illustrating the condition. As he understood Colles' fracture, it occurred transversely, ordinarily from one-half to one inch from articulating surface of the radius. This is not a typical case, it being rather a separation of one half of the articulating surface, on the side of styloid process. There are, indeed, five fragments, four extending into the joint.

The gangrene was due, no doubt, to the injury done to the soft parts.

Dr. Meisenbach inquired if there were much displacement of the fragments, and if the contour of the articulation was very much changed.

Dr. Lutz replied that the deformity was not greater than in many other cases he had seen. He had neglected to state that examination had shown that the radial artery was torn and thrombus had formed in the ulnar artery within two inches of the elbow-joint.

Dr. Meisenbach thought the outcome of Dr. Lutz's case certainly extraordinary for a Colles' fracture. The injury done the vessels explained it.

Had seen many cases of Colles' fracture that were oblique, at least should judge so from the difficulty experienced in keeping the fragments in place.

There is some difference of opinion as to the best form of splint. Speaker had in a number of cases used a short pistol-shaped splint, leaving fingers and thumbs free; by which method there occurs no

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temporary anchylosis, which is annoying, and which in old persons may remain permanently.

Stated Meeting, Oct. 24, 1886.

CHYLURIA.

Dr. Bremer presented specimen of urine from a lady, twenty-seven years old, having chyluria. Dr. Gregory and the speaker, ten years ago had treated a case together, a woman who drank considerable; diagnosis was at first obscure; at that time the disease was not as well understood as now.

This woman had occasional attacks of pain in the lumbar region, fever and incontinence of urine. This incontinence was produced by clots being formed in the urine in the bladder, and occluding the urethra, producing immense dilation of the bladder: quinine and iron always improved her condition, but she did not tolerate iron well.

The next case speaker saw was six months ago: a neighbor's coachman, a mulatto, also had incontinence on account of a clot in the bladder. He used a catheter and relieved him. He examined his blood for a parasite, *filaria sanguinaris hominis.*

There are two kinds of chyluria, tropical and non-tropical. The former is always produced by the *filaria sanguinaris hominis.*

The third case he had seen was the one of to-night, the patient, a strong, apparently healthy, woman. Whenever she is not under the influence of medicine she will pass this chylous urine.

An interesting fact is that you can at will produce the chyluria, by omitting the medicine, viz., iron, which, if taken regularly, makes the urine appear normal. The result of treatment is encouraging, and at the same time discouraging, for after all the case remains incurable.

There is no known pathological anatomy in these cases. It was thought that there must be some change in the kidney, or that there was some connection between the chyle vessels and the kidneys or bladder, which latter would be hard to prove. The speaker was inclined to think that it was a constitutional trouble and in some mysterious way influenced by the administration of iron. No doubt the older members had seen cases like this, and the speaker presented it for the benefit of the younger members of the society. Microscopic examination showed *leucocytes* which had also been observed by others, such as are found in normal chyle or lymph,

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also fat globules, some blood corpuscles and fibrine. The fat globules give the milky appearance to the urine.

Dr. Hill had seen a case of chyluria in a man who had been thrown from his horse. After a few days of passing bloody urine, the urine become chylous. Had also seen a case while pension examiner, and that patient also ascribed his condition to an accident.

The administration of iron had same effect as Dr. Bremer had stated.

Cancer of Stomach.

Dr. Bremer wanted to refer back to the discussion of last Saturday, of the specimen presented by Dr. Meisenbach, and in which he had mentioned a new test for cancer of the stomach. He had accepted as a fact the peculiarity of the absence of hydrochloric acid in cancer of the stomach and thought that it was a fact long known. The test mentioned last Saturday is something new, though he had made the nitrate of silver test some years ago. In the latter a piece of sponge is fastened to a string introduced into the stomach and withdrawn and examined.

Landower's Physiology states page 314, edition 1886: "The absence of hydrochloric acid in cancer of the stomach is an important diagnostic and prognostic symptom." It is not absent in simple dilatations. It was remarked here that its absence in cancer of the stomach could not be an important symptom because it occurred in other diseases. This is true, but it is just as important as albumen in Bright's disease. When we find albumen we do not say at once this is Bright's disease, because albumen may occur in physiological conditions. We must consider all the clinical features of the case, age of patient, his health, his cachexia and characteristics; and then after considering these symptoms, if there is continual absence of hydrochloric acid in the secretions of the stomach we have ground to conclude that we have cancer of the stomach though we cannot feel it.

Dr. Love thought that many physicians in active practice found many diseases of the stomach where the symptoms were so severe as to suggest cancer, such as dyspepsia, catarrh, and where there was an alkaline reaction. He thought too much importance was given to the symptom, and could not see upon what it was based, and it seemed to him of very little diagnostic value.

Dr. Bremer replied that clinicians in Europe laid great stress

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upon absence of hydrochloric acid in early diagnosis of cancer, and they were in that respect about as practical as anybody else.

CANCER OF THE PANCREAS.

Dr. Dalton said that they had had a post-mortem yesterday of cancer of the pancreas, with metastatic deposit in the liver, and several cases of abscess of the liver, with an opening through the diaphragm.

ELECTRICITY IN UTERINE DISEASE.

Dr. Engelmann spoke of the use of galvanic and faradic currents in treatment of uterine troubles, and especially of narrowing of the canal, using negative pole with great success. Treatment was easy and gave no pain to patient. Mentioned case of a lady who had narrowing on account of chronic inflammation due to laceration. The os was so narrow that the finest probe failed to pass. After one treatment with galvanic current, the ordinary sound was introduced. Menstruation was freer and with less pain than before. The current was used not only for dilating but for increasing the menstrual flow. Negative pole favored flow of blood, positive pole for too profuse flow.

In the male urethra currents had been used successfully for stricture, and they were very useful in removing and absorbing indurated, hardened connective tissue in the uterus. The current was easily regulated, did not destroy like galvanic cautery, and did not leave a cicatrix.

Mundé states that it requires a number of sittings of fifteen or twenty minutes each, before it can be determined if patient will be benefited, and that it requires a treatment of six to eight months in order to achieve results.

Some persons have idiosyncracies and will not be benefited. The greater number will be benefited at once.

ELECTRICITY IN KELOIDS, ETC.

Dr. Gregory inquired of Dr. Bremer concerning a case of keloids which he had sent him, and which he was treating by electrolysis.

Dr. Bremer replied that the tumor disappeared after about twenty-five applications. Whether it would return, remained to be seen. There was left a pigmented scar due to dissolution of the red blood corpuscles by electrolysis. Tumor was one and one-half inch in length and one inch in width. Two sittings a week caused too much inflammatory action, and to this was due the atrophy that took place.

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Dr. Gregory wanted to know how it would do to tattoo the spot with flesh-colored pigment.

Dr. Bremer thought it would not be a bad idea.

Dr. Gregory asked if the party said that he had cauterized the tumor.

Dr. Bremer said that party had said Dr. Gregory advised them to let it alone.

Dr. Gregory stated that he had a reason for telling party to let it alone. These tumors sometimes disappeared and gave no trouble. Some years ago saw a case which people wanted operated upon, but he said no, perhaps tumor would not grow, and if removed, the scar might be worse than the tumor. Four weeks ago, saw mother of the patient referred to, and she said tumor had diminished and gave no trouble. Hence, suggested in this case to let it alone.

Dr. Engelmann inquired of Dr. Bremer how long those sittings lasted, and strength of current.

Dr. Bremer replied that he had no reliable galvanometer, and used as a rule, two cells, and graduated current according to patient's sensations. Sittings were of a quarter of an hour's duration, but some times protracted to a half or three-quarters of an hour. Used eight or ten small needles connected with one pole, the negative. It was premature to claim that this case was cured, but it had not returned after several months. Dr. Hardaway reports the cure of one case of false keloid, and he believed, one of true keloid.

Dr. Engelmann said no comparison could be made between keloids and fibroids as far as their reduction was concerned. He wanted to call attention to necessity of strong and exactly measured currents. Introduction of a number of needles must cause pain. Had destroyed a number of tumors situated under skin about that size in about three sittings of three minutes each, without giving excessive pain.

A lady suffering from heart disease who had polypoid growth of internal os, attachment not larger than three-fourths inch. Used strong current, applied with trocar pushed into the growth. Treated her in office; she rested a few hours and then drove home. Might mention a number of cases in which tumors have been destroyed by a strong current in short sittings.

Dr. Gregory wanted to know the objection to using the current in malignant tumors.

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Dr. Engelmann had always had a dread of any interference with malignant tumors. Did not know that it was well founded, but would hesitate to plunge a needle into a malignant growth.

Some claimed that the galvanic current had a decided effect on cancer, and even stopped the growth and cured cancer of the cervix.

Dr. Williams some years ago reported a case of epithelioma of the eyelids which he treated by electrolysis and cured. The man afterwards died of typhoid fever. Would not hesitate to treat malignant growths with electrolysis, using quite a strong current.

Dr. Gregory asked if Dr. Tuholske had not stated that a noted surgeon in Europe cured erysipelas by inoculation. He thought we were approaching that point now.

Dr. Tuholske said that he had made that statement. Thus far the practice had not been successful. His experience with electrolysis had been that if the current was not thoroughly dispersed it was a painful procedure. Referred to the method of Von Bergman's treatment of hydrocele by excising tunica vaginalis. Had a a patient last week in whom all other methods failed, and he excised the tunica vaginalis, operated antiseptically; the patient was not sick at all and the wound healed in ten days. Thought, in cases which resisted ordinary treatment, the operation was justifiable.

Dr. Engelmann thought it possible to use very strong currents without giving pain, if the current were properly dispersed.

THE DISTRICT MEDICAL SOCIETY OF CENTRAL ILLINOIS.

Semi-Annual Meeting held at Springfield, Oct. 19, 1886, F. B. Haller, Vandalia, President; John Cook, Beecher City, Secretary.

At the opening hour, the society not being ready to begin the regular programme, invited Dr. David Prince, of Jacksonville, to give a short account of his visit to the recent meeting of the American Public Health Association at Toronto, Canada. This he did in an interesting manner.

Dr. Prince also presented and explained a diagram of a room for patients with contagious and infectious diseases. His object is to

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purify the air as it enters and passes from the room, by conducting it through a system of pipes, filled with cotton containing disinfectants. Dr. B. M. Griffith, Springfield, and also Drs. Kreider, Springfield, and J. J. Couen, Palmer, questioned the practicability of the scheme for general practice. The two latter gentlemen thought the idea a good one, that it might be simplified in a practical manner by hanging before the doors and windows of sick rooms curtains moistened with solutions of various disinfectants. Dr. Couen relates an incident when he had followed this method and probably thus protected other members of the family from a contagious disease.

Dr. Rauch, the well known secretary of the Illinois State Board of Health, made a very interesting address on state medicine. He asked the members of the society to aid the Board in securing some slight but very necessary additional legislation to the present health laws, that would largely increase their usefulness. He thought that in some instances the penalties for infringing the laws were too great, that some cases could be better handled if the legal processes involved were less complicated. In no instance when the Board had been beaten in the lower courts had the case yet been tried in the State supreme court. The medical colleges were at present giving them more trouble than the quacks. There is a constant tendency to evade the law on the part of the schools, and yet have their students believe they are conforming. In instances where colleges are graduating 45 per cent of their matriculants, he had almost invariably found that something was wrong. If we could get rid of about one hundred of our worst specimens of colleges the country would be better off. He spoke of and explained the law governing registration of births and deaths. He showed by statistics how dilatory the profession throughout the State was in the matter, and appealed to its members to do their duty, stating that the Board would render all possible assistance. If the profession would do as it should in the matter, the showings would give it a powerful lever with which to work in bringing about legislation that would be for the advantage of the profession. All the members expressed much interest in the present work of the Board.

Dr. David Prince spoke of the Effects of the Galvanic Current on the Structures and Functions of the Living Tissues.

He said that he often used the positive pole when others used the

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negative, the former attracted or liberated oxygen, which had a tonic effect on the tissues. In operating on strictures of the urethra he used and preferred a non-insolated electrode, employing ordinarily a simple steel sound. Following Dr. Prince, Dr. Frank R. Fry, St. Louis, Mo., read a paper reporting the removal of fifteen sebaceous cysts from the scalps of two patients. [Vid. December COURIER]. The two papers were discussed together by Drs. Washburn, Coner, Prince and Fry.

Dr. A. E. Prince, Jacksonville, read a paper on "Granular Lids." He spode especially of the difference between papillary hypertrophy and trachoma, dwelling at length on the treatment of the latter condition. He explained the method of cutting away the retrotarsal fold, and the use of jequirity, mentioning the disadvantages of these two kinds of treatment. He concluded by presenting a patient, and demonstrating to the society the method of squeezing from the enlarged follicles that form the trachomatous granulations their contents, and thus curing the disease. He had practiced this method on a number of patients with very good results. He was disposed to believe that it would supersede all others in the treatment of trachoma.

Dr. Geo. N. Kreider, Springfield, read a paper on "Bacteriology with special reference to the prophylaxis and treatment of puerperal fever." In discussing the paper, Dr. David Prince spoke of the good results he had had in washing out the womb. Dr. Griffith said that in puerperal fevers it was difficult to tell when they were due to sepsis, and unless they were, he did not think injections should be used. He was not in the habit of using them, and thought them very seldom necessary. Fevers that look threatening for a while during this period, often pass away. He did not believe that a fever due to sepsis, what we call puerperal fever, could be reduced or made to disappear within a few hours by simply washing out the womb and vagina. Dr. Haller agreed with Dr. Griffith in his views. He spoke of how rare cases of puerperal fever were in country practice. Dr. Couer and Dr. Cook related interesting cases in point.

Dr. Thomas D. Washburn, Hillsboro, read a paper which had for its title the query, "Are the Relations existing between county boards and physicians sufficiently defined?" The paper was discussed at considerable length, most of those present relating how in their several counties they had had difficulties in gaining proper

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recognition of their services to the county. Some of the incidents were amusing, but showed the need of reformation in this direction. The society showed much interest in the matter, as is evidenced by the adoption of the following:

Resolved, That inasmuch as county boards refuse to recognize our just and legitimate rights, either as citizens or physicians, we solemnly avow our determination to resist their arbitrary and unjust discriminations in regard to medical services, and refuse to perform for the county any professional labor for any considerations so long as these offensive enactments disgrace their records."

Dr. Amos Sawyer, Hillsboro, being absent, his paper was read by the secretary, Dr. Cook. His paper was a report of progress on therapeutics, he having been appointed to that duty at the previous meeting. Mention was made of terebene, eucalyptol, antipyrine, hyposulphite of sodium, etc. The discussion was mostly on the use of antipyrine, the majority of the members speaking favorably of its careful use in proper cases. Some of the members dissented from Dr. Sawyer's views of the antipyretic effects of the hyposulphite of sodium.

Dr. Haller presented a very interesting specimen of an ununited intracapsular fracture of the femur that had occurred two years before the patient's death.

SOUTHERN ILLINOIS MEDICAL ASSOCIATION.

CHESTER, ILL., Nov. 20, 1886.

EDITOR COURIER OF MEDICINE.—DEAR SIR: The "Southern Illinois Medical Association" has just closed one of its most successful meetings. There were presented to the association several very interesting papers all of which were "brief, concise and instructive." The papers elicited discussions that were very interesting to the entire membership. A larger number of cases was presented by the members, than ever before for clinical examination. Although the attendance of the members was not so great as on several former meetings, yet the matter presented was brief and concise, and the meeting was a decided success. The association adjourned to meet at Anna, Ills., early in June next. M.

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FOREIGN CORRESPONDENCE.

LETTER FROM BERLIN.

BERLIN, Germany, Oct. 12, 1886.

DEAR DOCTOR.—By arrangement with Dr. Martin I arrived here on the 26th ult., to take his courses in gynecology, which commenced on Sept. 27. I left London on the 22d ult., coming by boat to Ostend, thence to Brussels, Cologne, Mayence and Frankfort. I was not sick, nor nothing, coming across the channel, but a little aberration of my stomach caused me to be very thoughtful and meditative, and my companions said I did not look cheerful, and they thought me reticent. In fact I seemed to be a source of merriment to them till their turn came,and in fact every one in the cabin "heaved to" (too) before we landed. Dr. McAlister, a jolly fellow from Albany, had said he never knew what sea-sickness was; that he had sailed a great deal; and it amused him to see people get sick. So when I began to show unmistakable signs of seasickness he commenced to guy me and laugh. But ere long he appeared less cheerful. I suppose he was meditating, and I heard him remark —— —— about the boat and the weather. Then his stomach took a reversed peristaltic action, and he used some other emphatic expletives.

Brussels is a delightful city. We spent a day there, and saw what we could of the place in that time, going out about fifteen or eighteen miles by rail to visit the battlefield of Waterloo, and the artificial mountain, 200 feet high erected upon the centre of Wellington's line, where he gave the famous order, "Up, Guards, and at them!" Cologne is a town of 140,000. It is a picturesque place, and because of its historical reminiscences, its towns, spires, quaint buildings, etc., it was of considerable interest to me. The sailing or steaming down the Rhine was very pleasant, and kept us busy looking at the places of interest, made so on account of the historical events which transpired at the numerous places along its banks, and the old castles, the tales of history and fiction with which they are associated. The mountains and the ancient picturesque towns

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thickly nestled between their bases and the Rhine itself were among the charms that induced me to choose this route; and I am glad to have seen it. Not but that we have as grand and grander scenery in America; but partly on account of this river being the scene of battles and contensions for many centuries past and upon which hinged the destinies of kings, rulers and countries and upon the fate of which hinged much of the civilization or want of it from those times to the present. But of these things I can talk better than I can write, as it takes less time.

I have not attempted to visit places of general interest. Still many have come in my way. The more I see of Europe, and learn of its laws, the condition of the people and its institutions, the prouder I am of America, its laws, its institutions and its citizenship.

I like London. There is no place like it in the world. I like the hospital advantages there, although the hospitals are scattered. There is no course given in London, or any where else, like Martin's, and for that reason I am glad I came here. He keeps us occupied a good share of the day. For instance, in the morning at 7 o'clock we meet to operate on a cadaver or phantom, and spend two hours. At 11, he gives an operative clinic; at 12, a lecture and demonstrations. Then at 2 P. M., he gives the touch course. That is women come in and are examined by us in presence of Martin, and he gives us his opinion, diagnosis and treatment. Every day when I get the time, I go to Prof. V. Bergmann's surgical clinic. He is considered the foremost general surgeon here. The matter of antisepsis he carries out to perfection.

My experience for a day would, I think, make an interesting letter, professionally speaking. For instance, to-day, though not a special one I saw, after my operative course on the phantom, Dr. Bergmann make the suprapubic operation for stone, and by the way that is the popular operation for stone in Europe at the present. Let me tell you how he proceeded, as you may want to make the operation before I get home. First, he has eleven first-class assistants[1], one male and one female nurse, who have all been thoroughly washed, scrubbed and disinfected. No sponges are used, but pledgets of disinfected gauze are used instead. The

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1 Nearly all of these assistants have scars on their faces resulting from wounds received in duels.

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parts to be operated upon are thoroughly washed with soap, water, and flesh-brush. Then towels saturated in either aqua carbolica 3 to 100, or perchloride of mercury 2 or 3 parts to 1000, are placed all around the part to beoperated upon. The instruments are placed in a tray containing a disinfecting solution. Bergmann and his assistants have all white gowns. No piece of gauze is used inthe wound more than once, and the wound is frequently irrigated with the solution. Into a rubber tube,to one end of which is attached a rubber bag, and at the other a valve, he injects some sixteen ounces of water, first placing the bag in the rectum. The bag thus distended fills the rectum and lifts the bladder well to the front. He then injects through a rubber catheter sufficient, slightly carbolized, water to distend the bladder. This maneuvre lifts the bladder fundus above the pubes, and leaves sufficient space between the neck of the bladder and lower border of the peritoneum, especially by gently lifting that membrane, to make his incision without wounding the serous covering of the bladder. He makes quite a long incision through the integument and adipose tissue, assistants constantly wipe the wound with gauze, and each little vessel is caught with the Spencer Wells artery forceps, tied with cat-gut and cut short. He finally cuts through the linea alba; he plunges the blade of his "messer" into the bladder: when water flows from the cut and by the side of the blade, assistants catch the edges of the wound with tenaculi. The wound is made sufficiently large to admit his finger, with which he stretches the opening sufficiently to admit by the side of his finger a pair of thin, flat, broad-bladed forceps, with which he grasps the stone and withdraws it. The stone removed to-day weighed about one-half ounce. The bladder wound he closed with a continuous stitch of fine silk. In London, they use catgut, if anything; (some don't stitch the bladder). He then sews the edges of the recti together,but during these manipulations water is thrown through the catheter at intervals and through the wound.

The catheter is held in place by a tourniquet placed around the penis. The tourniquet is a slender gum elastic tubing. The external wound is closed by silk sutures with protective oil-silk placed over the cut, gauze packed on and cotton placed on top of that and a bandage applied around the body and hips. Chloroform is the anesthetic, and this patient came near dying, and I think in my hands would have done so, for he stopped breathing, become cyanosed and as blue as I ever saw a body dead or alive. They of

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course pulled the tongue from the mouth after inserting a gag to keep his mouth open. They applied artificial respiration to no purpose, and all on the benches supposed he had "croaked," as the saying is. There was a spasm of the glottis and the lifting of the tongue did not lift the glottis, so Bergmann becoming alarmed for fear the assistants were not going to resuscitate him, pushed himself rapidly before the assistants, put his finger in the patient's throat and lifted the epiglottis with the end of his finger and the dead man gasped, the pneumogastric nerves slowly responded, and by the efforts at artificial respiration the man got to breathing quite well. The patient was a large strong man. The operation lasted a long hour and a half.

He then removed a tumor from the side of a man's neck, and I left his clinic to go to Martin's. He (Martin) curetted the wombs of two women, made Emmett's operation for lacerated cervix, and Martin's operation for procedentia, the latter of which I purposed describing, as it is interesting, but as I have already written so much will defer. Saturday, Bergmann operated for false joint in broken femur, finding muscle between the fragments. It was no fault of treatment, the soft parts becoming inextricably entangled, The operation took two hours and more to make, the greatest delay being occasioned by bleeding vessels which they could not find. I suggested to a friend by my side that I would include quite a mass with an aneurism needle, and thus ligate the bleeding muscle, and after working an hour to get the artery with their forceps, they did the very thing I suggested to my friend.

OCTOBER 24.

This is Sunday, and I have spent the forenoon at the hospital operating on the phantom; I think I will finish up here this week, when I will go to Paris, and after a short stay there will return to London. I have thought all the time that all things considered, London is the best place for one to study, unless he stays a long time on the continent, to study specialties and learn the language. Martin's course has been *practical*, and hence very beneficial to me, especially as I had a good interpreter to explain doubtful points. Von Bergmann's clinic continues to be very interesting. I will briefly allude to a case I saw there yesterday. A little boy some ten days ago was severely scalded and brought in for treatment.

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The scalds involved the upper part of the chest nearly to the line of the nipples and also each shoulder. The surface was first allowed to suppurate and granulate to a slight extent. The parts were then thoroughly cleansed and the granulations scraped; and the bleeding thoroughly dried. Three layers of epidermis an inch long by one-third inch wide were shaved of the boys thigh and put on the granulation surface till about one-half the scalded surface was covered. In about four days following, the dressings were removed and the skin plants were found alive and doing well. Then more of the raw surface was scraped and more skin grafted, and yesterday, at the third operation, the raw surface was entirely covered, and there is every prospect of a perfect recovery and the avoidance of an ugly scar and contraction. We get very useful practical lessons here every day. The operators are very deliberate and slow in their work. They are slower than a man paying a bill, but they do it with great nicety.

Yours very truly, G. E. RANNEY.

COMMUNICATIONS.

DR. MICHEL'S PRIORITY IN ELECTROLYSIS OF THE HAIR PAPILLA.

To the Editor of the St. Louis Courier of Medicine:

SIR:—In an article on Hirsuties in Wood's "Reference Handbook of the Medical Sciences," my friend, Dr. Van Harlingen, makes the following statement: "Though electrolysis had been suggested at a somewhat earlier date by Piffard, as a means of destroying the hairs in hairy nævi, the method was first employed systematically by Michel in Trichiasis." * * *

As a matter of fact Michel's first publication on this subject appeared in the *St. Louis Clinical Record* for Oct., 1875, while Piffard's earliest mention of the use of electrolysis in this connection appeared in his "Elementary Treatise on Diseases of the Skin,"

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which was issued in 1876. Undoubtedly the error has arisen through a faulty proof reading in an article of mine (*Die Radikalbehandlung der hypertrichosis mittels Elektrolyse. Monatshft. f. Prakt. Dermatologie*, 1885, No. 10), in which Michel's article was credited to the March number of 1879, instead of the number for October, 1875. Aside from this slight mistake of date Dr. Van Harlingen gives due honor to Dr. Michel for his very brilliant and original suggestion.

Respectfully,

W. A. Hardaway, M. D.

ELEGANT SEIDLITZ POWDER SOLUTION.

Having figuratively prescribed seidlitz powders, and noting the adulteration and short weight of many dispensed, I decided upon the following method, which has given satisfaction to both physician and patient.

Solution No. 1.

℞ Sodii bicarbonatis, - - - - ℥ij.
Potassii et sodii tart., - - - ʒij.
Syr. aurantii cort. recent., - - ʒvi.
Aq. gaultheriæ ad., - - - - ℥ij.
M. ft. sol.

Sig. Pour in a goblet half full of cracked ice.

Solution No. 2.

℞ Acid tartarici, - - - - gr. xxxv.
Syr. aurant. cort. recent., - - - ℥ss.
Aq. gaultheriæ ad., - - - - ℥j.
M. ft. sol.

Sig. Add to No. 2 and drink while effervescing.

This forms an agreeable and effective aperient, devoid of any saline taste, effervescing slowly, and contains the virtue of one seidlitz powder, U. S. P. 1880.

This may be prescribed in quantity as it will keep indefinitely.

The taste is as agreeable as soda water. Aromatic syrup may be used if it is desired.

H. S. Brookes, Ph. G., M. D.

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